Cg compugraphic

EditWriter Family

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FOREWORD

This manual, "The EditWriter Family," has been designed for use with all of the EditWriter systems, including the original EditWriter and the EditWriter II. Section I specifically addresses the EditWriter 7500, 7700, 7300, 7400, 7100, 2750, 1750, EditWriter II and 7770.[1] Section II refers to the EditWriter Option Programs: Dual Disk, Multiple Column Positioning (MCPO), Ruling Option (ERO), Printer, Label Printer, Preview, Multiple Hyphenation (MHO), Exception Dictionary, AutoKern, Intelligent Communications Interface (ICI) and EditWriter/8600 Emulator.

It is assumed that the operator will already have a basic knowledge of typography before attempting to use the EditWriter manual. However, if instruction in this area is necessary, Compugraphic offers the BASIC GRAPHICS TUTOR, an audio-visual, self-teaching program which can be used in conjunction with this manual.

Thus, "The EditWriter Family" is not a course in typesetting. It is an aid to assist you in rapidly learning how to operate all of the EditWriter systems and their enhancements. The manual covers the functional aspects of all EditWriter systems including: input and editing, typesetting, disk storage and file management.

The manual has been arranged in a logical instructional order and should be thoroughly studied prior to operating an EditWriter system. Because the EditWriter 7500 includes all of the major components of any EditWriter (mentioned above), the format of the document is based on the operating instructions and common functions of the 7500 model. After the machine's functions are mastered, the operator may choose to complete the practice exercises included. Each explanation of an EditWriter system discussed thereafter, i.e. 7400, 2750 (separated by tabs), focuses on the specifications and instructions particular to the specific model.

Compugraphic welcomes any comments, suggestions or questions. Please feel free to direct them to any one of the offices listed on the preceding page.

[1]For information on the EditWriter 7900 or 7900 Universal, our high-speed output unit, refer to the 7900 Operator Training Manual, Part No. 47611-002. Also, for an explanation of Compugraphic's WordCom systems (M.C., S.I. and V.I.), our word processing interfaces employing EditWriter 1750 terminals, refer to the individual WordCom Operator Training Manuals.

TABLE OF CONTENTS

7500 1
MACHINE COMPONENTS 3
Photo Unit 4
Disk 5
Keyboard 6
Screen 9
Photographic Materials 13
Exposure Controls 15
Filmstrips 17
Width Cards 19
Adjustments 20
HOW TO BEGIN 21
Power On 21
Wordspace Minimum & Maximum 26
Letterspacing 27
Character Compensation 28
Hyphenation 29
Parameter Changes 30
FILE MANAGEMENT 33
The Disk 33
Inserting A Disk 34
Initializing/Erasing A Disk 35
File Index 36
Entering A File & Typesetting 37
Calling A File 39
Replacing A File 40
Deleting A File 41
TYPESETTING FUNCTIONS 43
Quadding 44
Insert Space 47
Neat Composition
(Automatic Quadding) 49
Justified Composition 53
Discretionary Hyphen 56
Horizontal Spacing 57
Vertical Spacing 66
Insert Character 75
Character Alignment 79
EDITING 81
Scrolling 82
Cursor Controls 84
Deletions 86
Rejustify 88
Insert 89
ADVANCED FILE MANAGEMENT . . . 91
File Records 91
Search 93
Replace Search 94
Block Routines 95
Insert File 97
Measure Depth 99
Paging Copy 101
Queuing 103
Summary—Typesetting Sequences 105
TABULAR COMPOSITION 107
Typewriter Tabs 108
Calling A Tab 111
Tab Line Endings/
Deactivating Tab Mode 113
Floating Tabs 116
Multijust 119
Auto Tabs (Automatic Tabs) 121
Tabulation Summary 125
PRACTICE EXERCISES 127
7700 139
7300 143
7400 145
7100 149
2750 151
1750 153
EditWriter II 173
7770 179
APPENDICES & INDEX 183

ERRATA SHEET

Please note the following changes and additions on the pages referenced below. These alterations will be included in any future reprints of the EditWriter Family Manual.

Tab	Page	Alterations and/or Additions
Machine Components	13	**To load photographic material:** 4. The pressure plate is closed *after* the paper is pushed through the feed slot that enters into the cassette compartment. 7. The running count of paper indicated by the film counter is measured in *feet* and tenths of a *foot*.
Machine Components	17	**To mount the filmstrips:** 3. When the filmstrip is in an upright position the type images are on the *right*.
How To Begin	21	**System Reset**—The red Reset button (on the control panel) is located to the *left* of the width cards on the EditWriter 7500 series and to the *right* of the width cards on the EditWriter 7700 series.
How To Begin	27	The opening sentence of the second paragraph "Eliminating letterspacing when setting justified text will often result in a wavy right-hand margin." is invalid.
File Management	37	**To enter copy as a file:** 1. If you want to enter only a portion of a job on the disk, place the cursor after the last line of copy to be entered. If you want to enter the entire job as a file on the disk, key LIMIT, SCRL UP, ENTER FILE, EXECUTE.
File Management	38	The reference as described above for p. 37 can be applied to Step 1 of both subheads on p. 38. **To store and typeset files simultaneously:,** **To transfer copy directly from screen to photo unit:**
File Management	40	**To replace copy on disk:** 1. It is not possible to replace only a portion of a record. The Replace File function automatically moves the cursor to the end of the copy and replaces the entire record or file.
Editing	87	**Clear Memory**—If CLEAR MEMORY is hit accidentally, it can be deactivated by striking CNCL CHAR.

Tab	Page	Alterations and/or Additions
Advanced File Management	92	**To replace a record on the disk:** 1. The Replace File function automatically moves the cursor to the end of the copy and replaces the entire record.
7700	140	**Font Drum Power Switch**—To insure safety, the locking mechanism is released 40-45 seconds after the font drum has been turned off.
2750	151	The 2750 can access any point size from 4 to 72 depending on the lens configuration of the output device.
1750	154	Footnote 15 should read. . .If the 1750 is set up as a communications terminal refer to the appropriate Compugraphic WordCom Operator Training Manual.
EW II	174	Delete footnote 21.

7500

7500

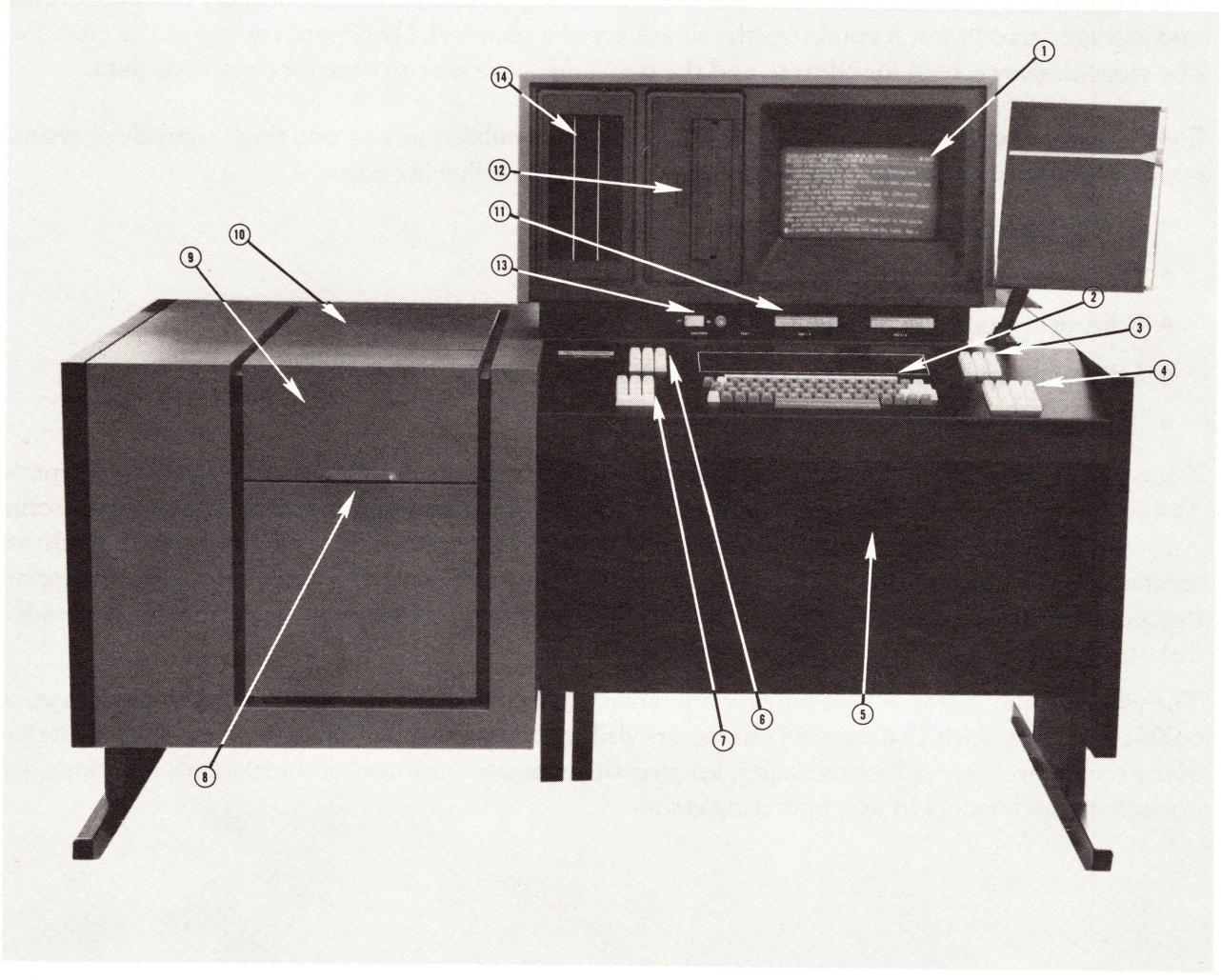
The EditWriter 7500 is a direct-entry phototypesetting system with exceptionally powerful editing and storage capabilities. It combines the simplicity of a secretarial keyboard for input, the efficiency of a video display screen for editing, and the convenience of disk storage for recording data.

Eight different type styles in twelve different sizes are available at any one time to produce typeset copy of outstanding quality. The system functions in the following ways:

- Direct typesetting with no storage
- Direct typeseting with storage on disk
- Editing or updating material on disk with typesetting
- Editing or updating material on disk without typesetting
- Typesetting directly from disk, unattended

The operator communicates with the 7500 through the main keyboard and four auxiliary keypads. The main keyboard, located directly in front of the display screen, is used for typing manuscript copy and for replying to system requests for typesetting parameters. The auxiliary keypads are located on either side of the main keyboard. These are used for entering more complex typographic function codes, for editing material displayed on the screen, and for sending copy to and from the disk storage system.

The video display screen allows for easy reference while entering or correcting data. It displays up to 6,000 characters, with 13 lines of 64 characters visible at any one time. Two additional lines at the top of the screen are reserved for messages, keeping the operator informed of the system's functions, i.e. typesetting parameters in use, operating errors.



1. VIDEO SCREEN
2. MAIN KEYBOARD
3. TYPOGRAPHIC KEYPAD
4. FILE MANAGEMENT KEYPAD
5. FUSE ACCESS PANEL
6. INITIALIZING KEYPAD
7. EDITING KEYPAD
8. PHOTO MATERIAL LOADING
9. CASSETTE COMPARTMENT
10. FONT ACCESS DOOR
11. WIDTH CARDS
12. DISK DRIVE
13. POWER ON SWITCH
14. DISK STORAGE COMPARTMENT

MACHINE COMPONENTS

MACHINE COMPONENTS

The EditWriter has four main components:

Photo Unit:
Performs actual typesetting functions in order to produce final copy on photographic material (paper or film).

Keyboard:
Used to input copy into the system, separated into five task areas.

Disk:
A magnetic storage system which records copy and instructions entered through the keyboard.

Screen:
A video screen which displays copy and instructions entered from the keyboard.

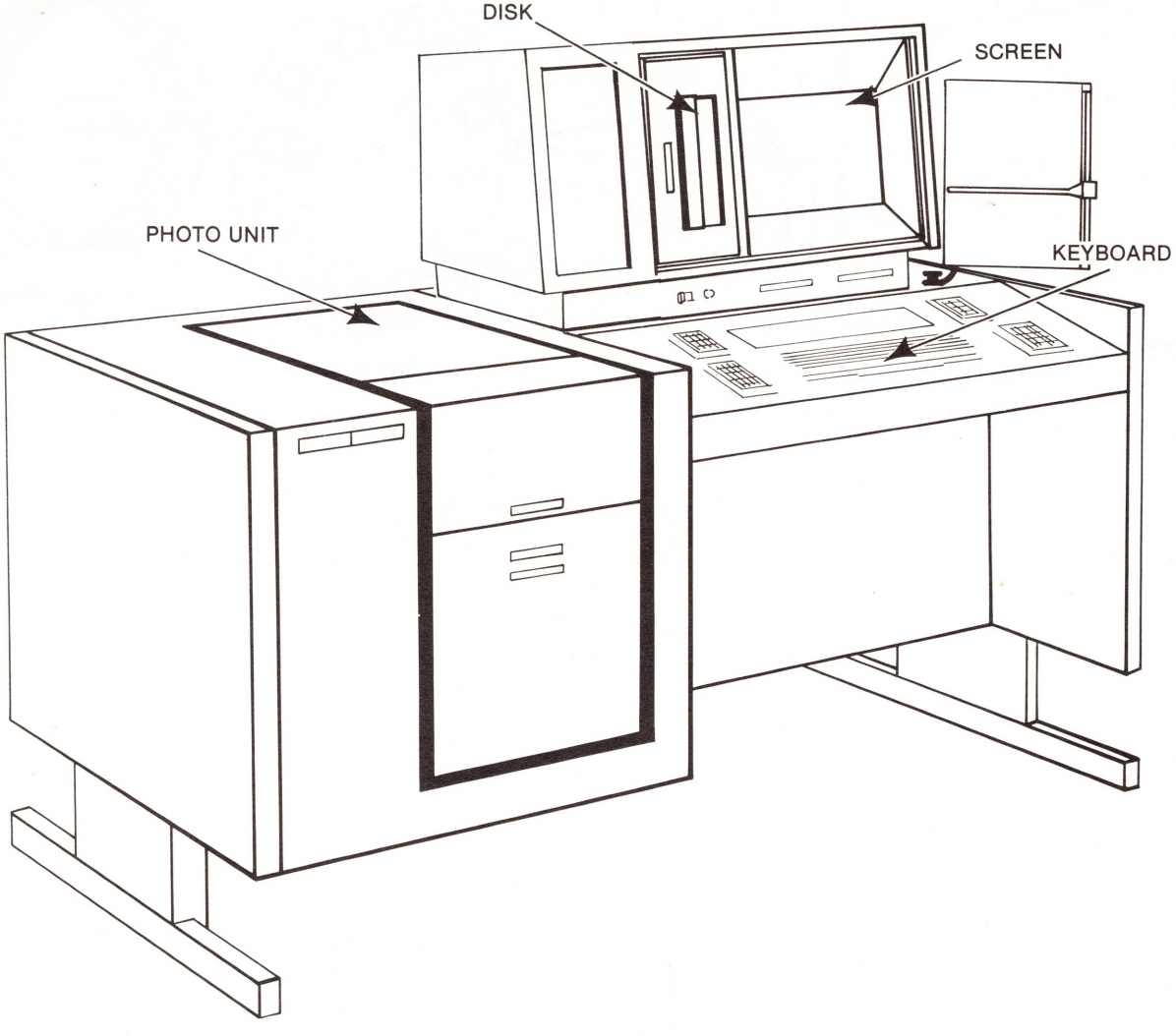
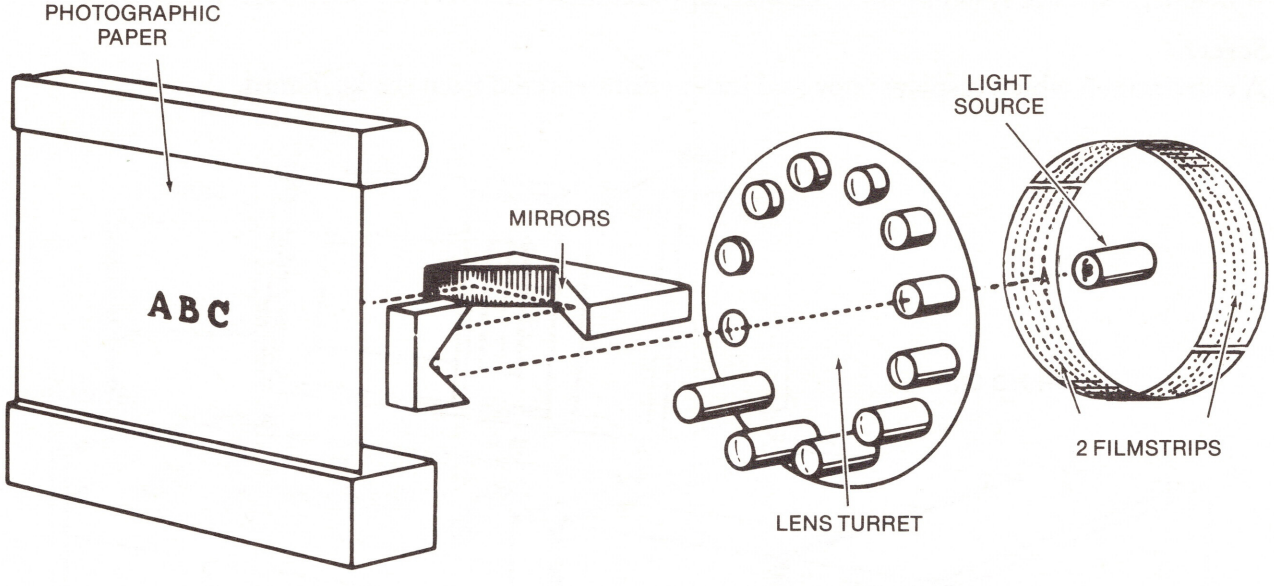


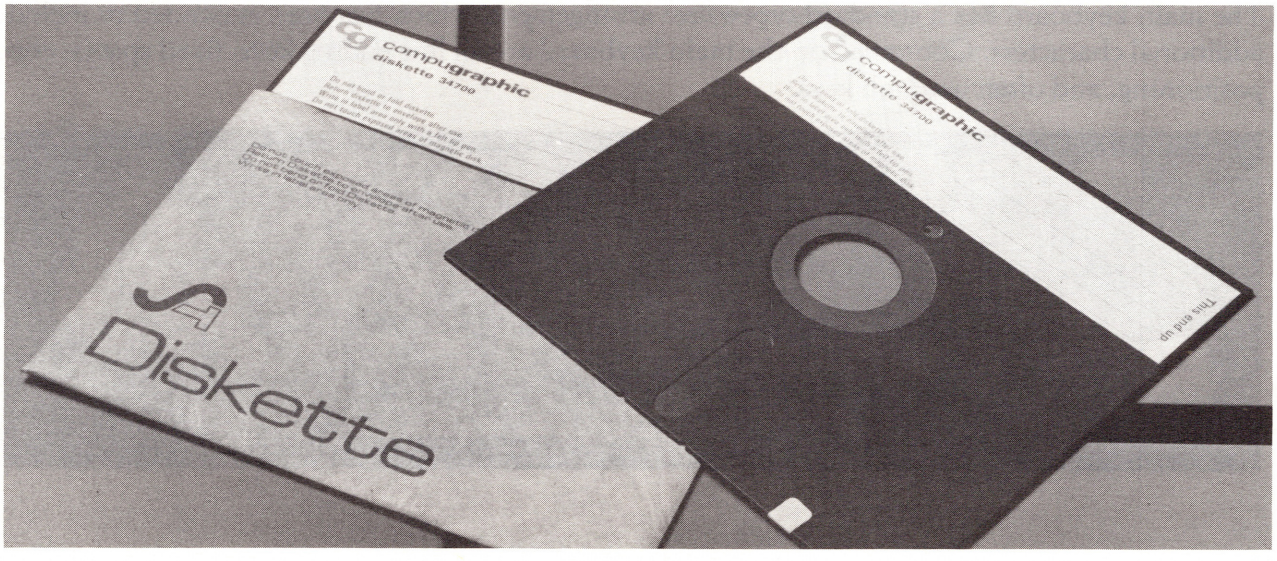
PHOTO UNIT

The EditWriter family utilizes a photographic process to produce typeset copy. Two filmstrips, each of which contains four different alphabets (fonts) are used as master character images and mounted on a revolving drum. Twelve different lenses serve to reduce or enlarge the characters. A light source passes through the revolving filmstrips capturing the characters' images. Each image then passes through a lens and is reflected by a mirror onto the photographic material. After each character is photographed, the mirror in the photo unit moves (escapes), causing the next character to be photographed adjacent to the first.



DISK

A single floppy disk provides storage for copy entered from the EditWriter keyboard. Each disk can store 300,000 characters or 128 different jobs, also referred to as files. The content and length of a file is determined by the operator. There is no limit to the number of characters that can be stored in a single file other than the capacity of the disk itself.



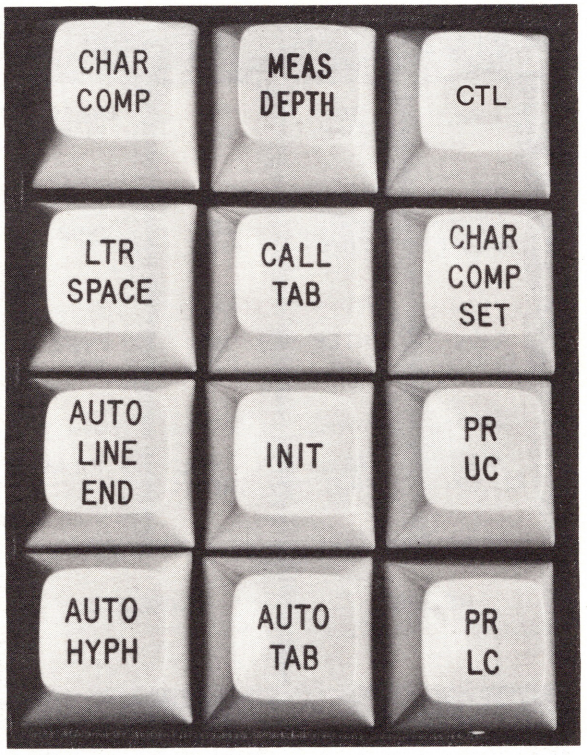
KEYBOARD

Multiple keystroking and complicated coding instructions have been reduced through the use of dedicated keys and separate functional keypads.

Main Keyboard

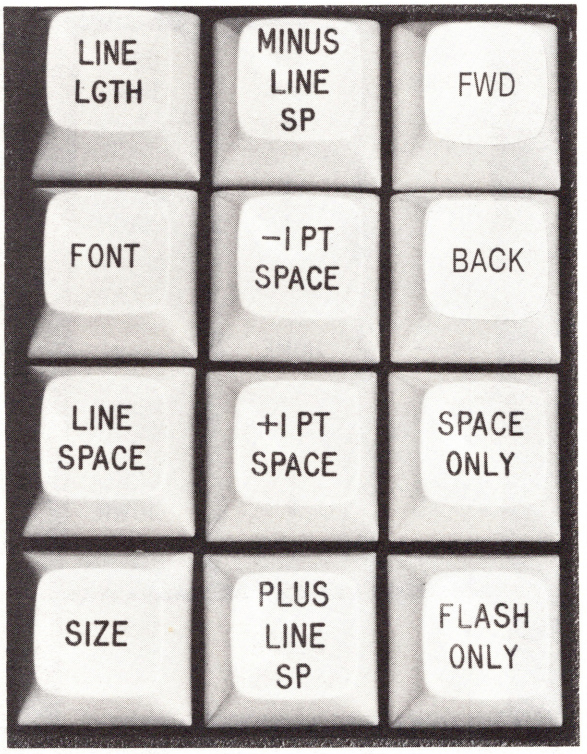
The main keyboard has a standard typewriter arrangement, which has been expanded to include additional characters. Contained on the main keyboard are all line ending keys, fixed spaces, copy positioning, and often used tab keys.

Upper Left Keypad
(Initialization Keys)



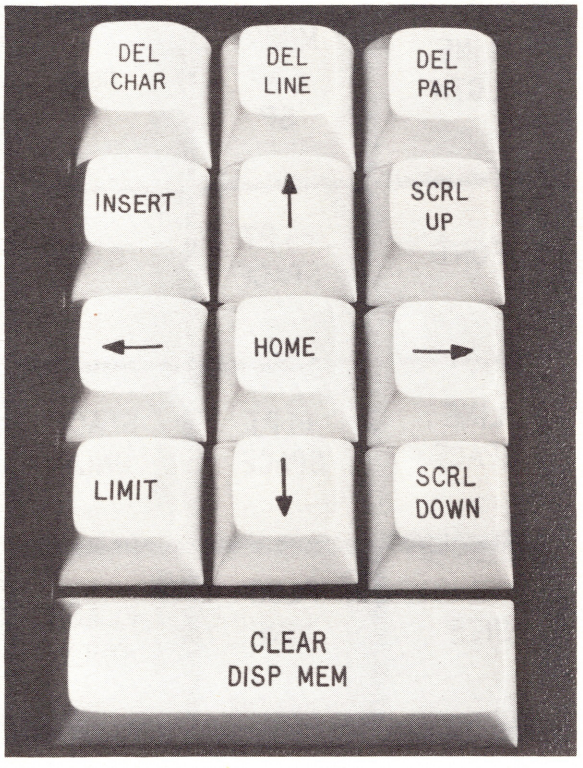
The upper-left keypad consists of twelve keys which are used to initialize and fine tune the EditWriter at the beginning of each job. CTL (Control), recently added to the EditWriter keypad, is used to access some of the Option programs. Four keys provide On/Off controls for machine functions such as hyphenation and letterspacing.

Upper Right Keypad
(Typographic Function Keys)



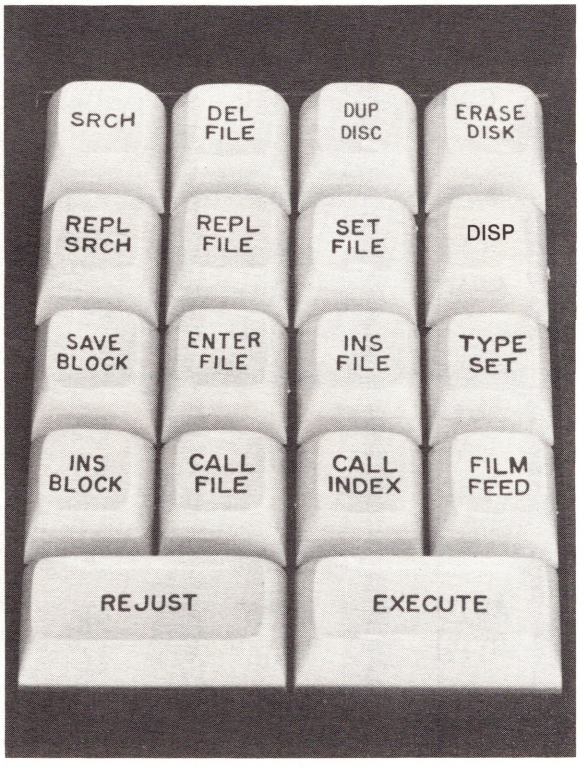
The upper-right keypad is made up of twelve keys which control typesetting functions. Four of the keys are used to input typesetting parameters such as size, line space, type style and line length. The remaining keys control the vertical and horizontal placement of type. The middle row controls the vertical placement and the row to the right controls horizontal positioning.

Lower Left Keypad
(Editing Keys)



The lower-left keypad has twelve keys which are used for editing. The large key at the base of the keypad, CLEAR DISP MEM (Clear Display Memory), is used with the EXECUTE key (lower-right keypad) to clear all information from the screen's memory.

Lower Right Keypad
(File Management Keys)



The lower-right keypad is used to store and retrieve information from the disk and send copy to the photo unit for typesetting. This keypad also contains the EXECUTE key, used in conjunction with other keys to complete a command. DISP, (Display), is a new addition to the EditWriter keyboard. It is used with the Preview option.

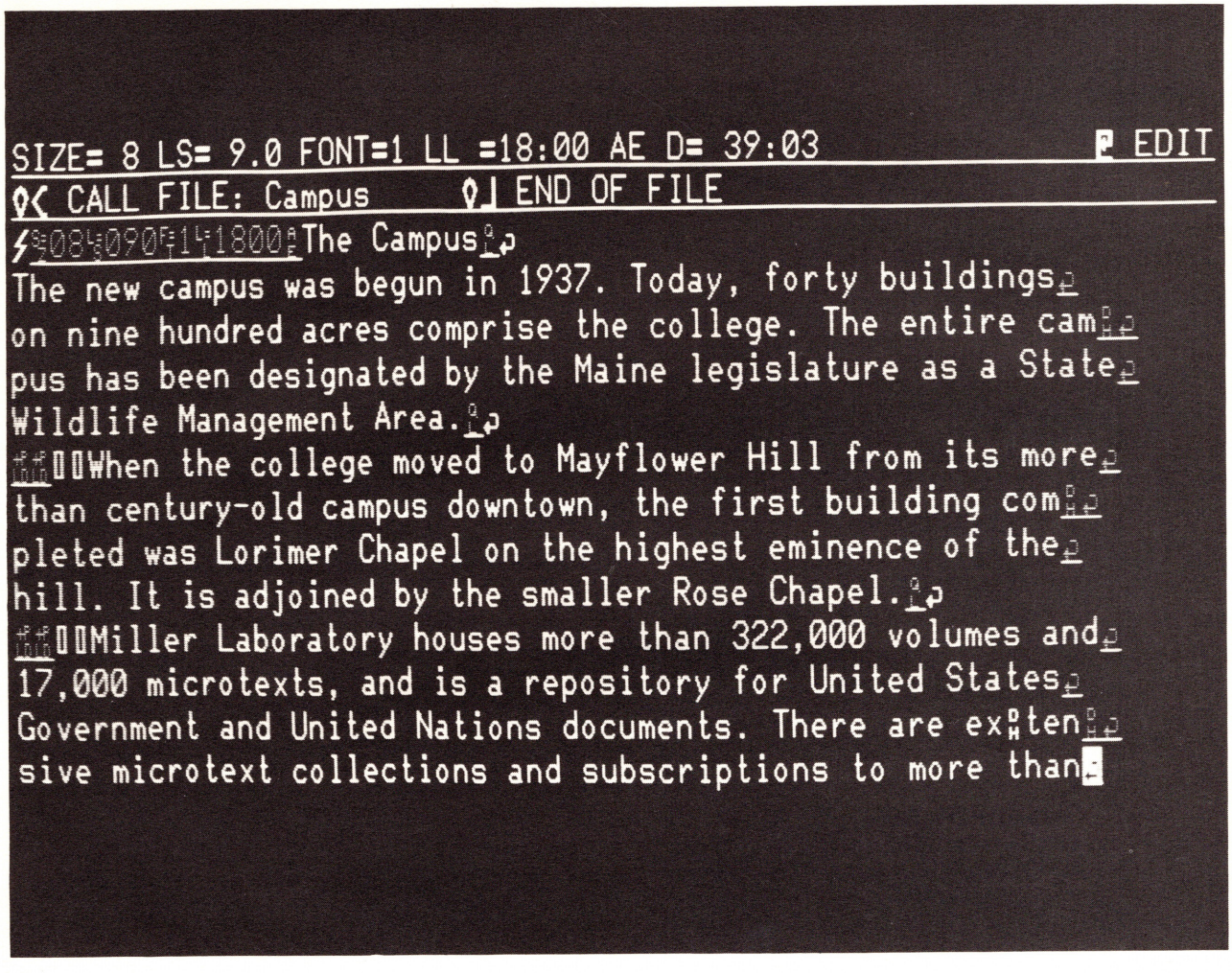
Precedent Keys

An imaginary row of keys located directly above the main keyboard of the EditWriter (See Appendix G) provides access to 20 additional characters. When preceded by PREC/UC or PREC/LC, the numbers 1-0 are replaced with symbols and pi characters that can be inserted anywhere within a line. For example, the keystrokes PREC/UC, 0 in layouts 500 or 501, access a baseline rule. Every keyboard layout has different symbols and pi characters.

SCREEN

The video display terminal has a memory capacity of 6,000 characters or 200 lines. Thirteen lines of this memory can be viewed on the screen at one time. In addition, two message lines at the top of the screen appear automatically when machine power is On. By using the SCRL/UP and SCRL/DOWN keys on the editing keypad, information within the screen memory can be rolled up or down, enabling the operator to view any section of copy on the screen.

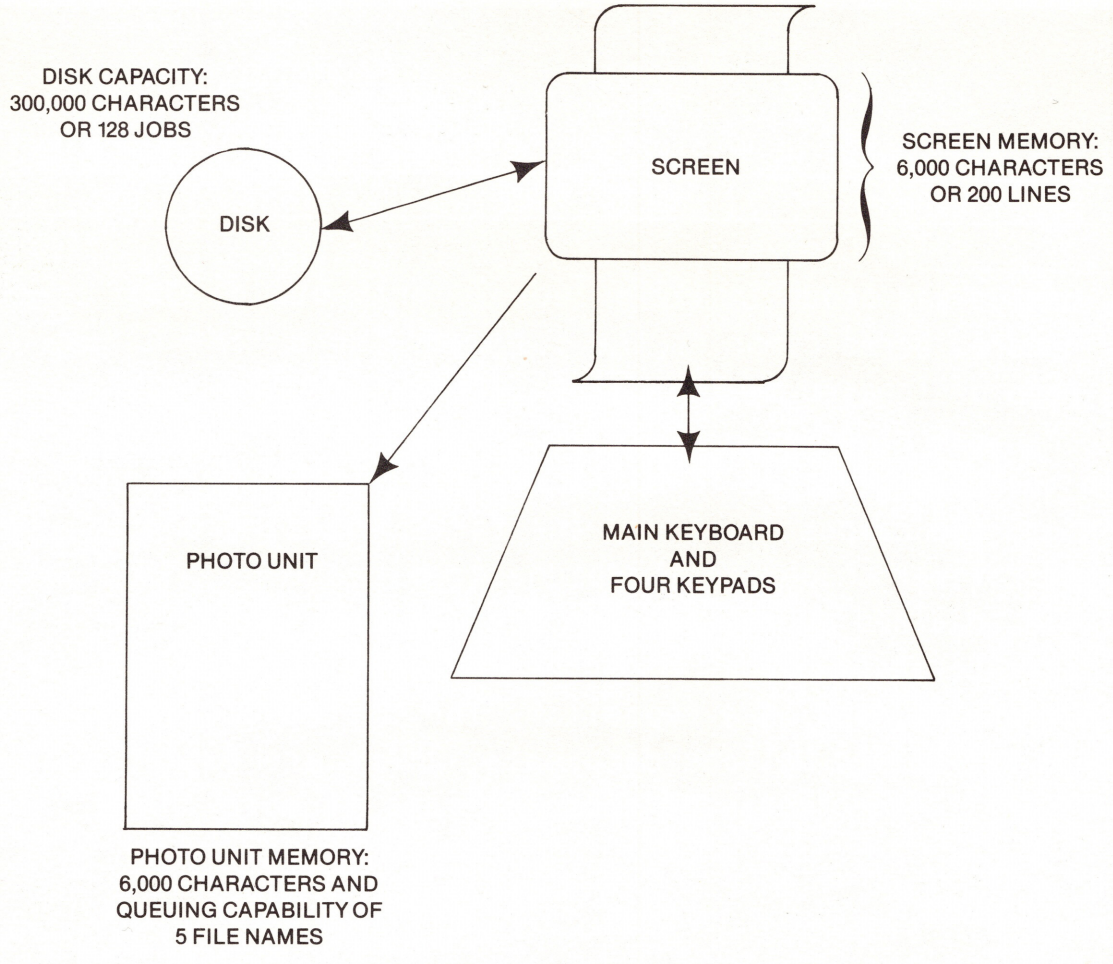
As characters and instructions are typed into the screen, they are displayed in 18-point type. The characters appear in full (bright) intensity. The instructions and coding appear in half intensity and are underlined.



The Screen as Communications Center:

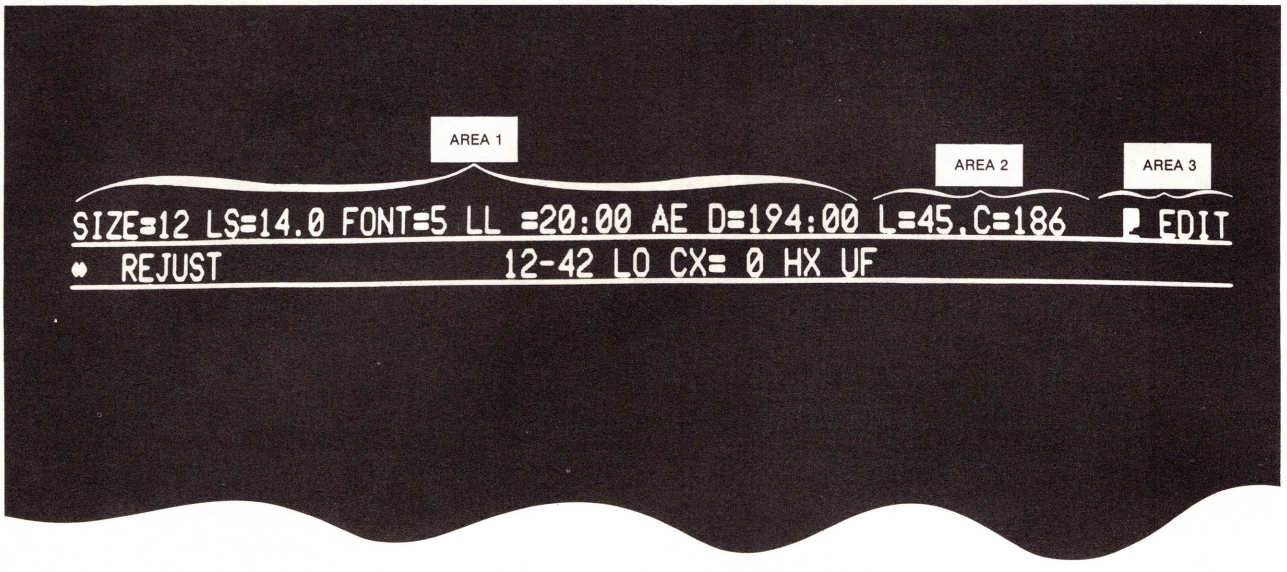
The relationship of EditWriter components is shown below.

- Copy is typed into the screen from the keyboard.
- The copy is then transferred from the screen to the disk for storage.
- At the same time, copy can be sent to the photo unit for typesetting.
- Copy can be recalled from the disk to the screen.
- Jobs can be sent directly from the disk to the photo unit.



Parameter Line

The first of the fifteen lines on the screen is called the Parameter Line. The Parameter Line is divided into three distinct areas:



Area 1:

Area 1, the area to the far left of the Parameter Line, displays the current typesetting information in use by the system. These symbols, which represent point size, line space, font number and line length are defined by the operator at the beginning of each new job. Any coding changes made while keyboarding will be reflected immediately in the Parameter Line. When a job is called to the screen, the Parameter Line shows the last coding changes that were entered into the job.

This area also displays the operators choice of automatic or manual line ending mode. As copy is input, Area 1 provides a countdown of the line length remaining in picas and points, indicating the amount of white space left on a line (LLR=). Or, if within a tab field, the tab length message (TL=) changes to tab length remaining (TLR=). A copy depth indicator displays a running count of the vertical depth of copy on the screen in picas and points (D=XX:XX).

Area 2:

When the amount of copy input from the keyboard approaches the limit of the screen memory (6,000 characters or 200 lines), Area 2 will display a message (L=XX,C=XXX), to inform the operator of the remaining usable space (lines and characters). This screen message, accompanied by a beeping sound, is activated when either 25 lines or 500 characters are left in the memory.

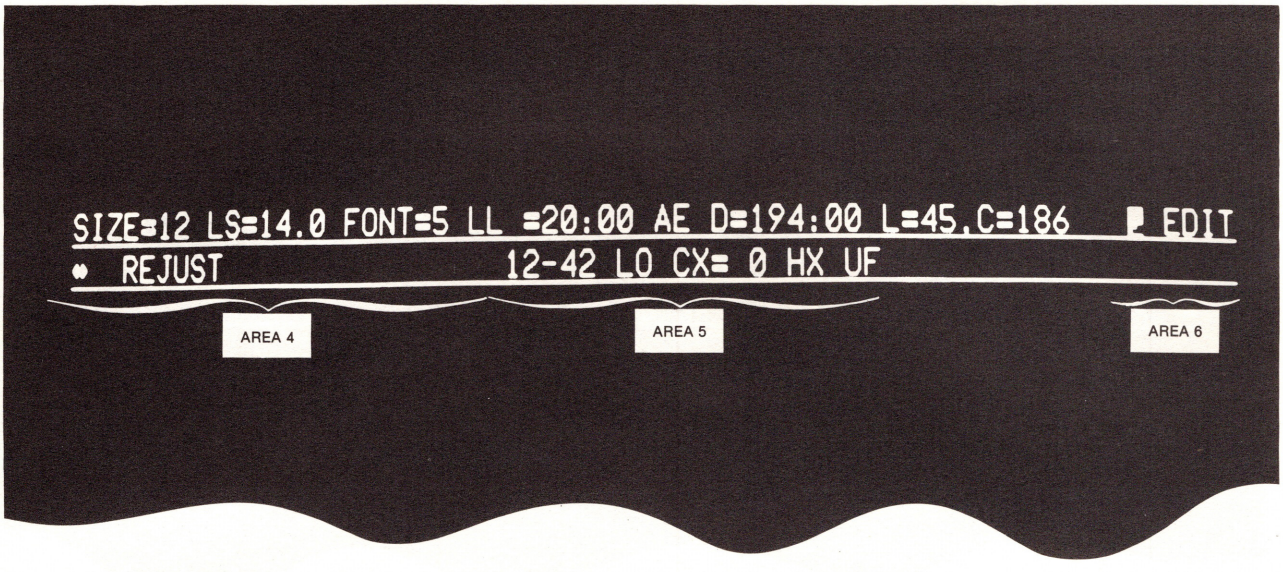
Area 3:

Area 3, to the right of the Parameter Line, indicates either counting (ENTRY) or non-counting (EDIT) mode. When the ENTRY message appears, the system is counting, and the line length remaining (LLR=) or tab length remaining (TLR=) will diminish as each character is entered.

The EDIT message appears when the operator uses any of the editing keys on the lower-left keypad. At this point, counting is turned off and LLR= and TLR= will *not* change as more copy is entered. To return to ENTRY mode (counting), strike REJUST, EXECUTE on the lower-right keypad.

Status Line

The second line on the screen is called the Status Line. The Status Line is divided into three areas:



Area 4:

Area 4 is a message area used to verify operator commands such as REJUST, ENTER FILE, SET FILE, SAVE BLOCK, etc. These messages appear whenever the operator uses one of the "file management" keys from the lower-right keypad.

Area 5:

Area 5 displays the standard operating conditions of the EditWriter (minimum and maximum space-band values, letterspacing, character compensation, and hyphenation). In setting tabular composition, this area (as in Area 1) requests information from the operator, and verifies the use of this information during keyboarding. Area 5 also signals keyboarding errors and the MEMORY FULL condition. Messages relevant to the EditWriter option programs also appear in Area 5.

Area 6:

Area 6 indicates whether or not the photo unit is processing copy. This area displays the message ACT (active) when the photo unit is typesetting or when photographic material is being advanced. It also displays appropriate messages when accessing certain option programs.

PHOTOGRAPHIC MATERIALS

The EditWriter can use any of the following photographic materials:

- Kodak Ektamatic Grade S Photomechanical Paper
- Kodak RC Paper
- Compugraphic DuroGraphic Paper (all models except high-speed 7700 and 7770)
- Compugraphic PermaGraphic Paper (all models except high-speed 7700 and 7770)
- Compugraphic PermaGraphic Film (all models except high-speed 7700 and 7770)
- S0-050 Kodak Film (only high-speed 7700 and 7770)

During operation the photographic material is automatically advanced and stored in a light-proof cassette. Upon completion of typeset copy, cut the film, remove the cassette, and develop the stored material. 150-foot roles of 2,3,4,6,8, or even 12 inch (for the EditWriter 7770) photographic material can be used.

To load photographic material (Refer to photos on following page):

1. Lift up the cover of the cassette compartment and take out the cassette. Then remove the lower cover of the material transport assembly.
2. Open the pressure plate by releasing the pivot latches on each side of the assembly. The pressure plate will drop forward and remain in an open position (Fig. 1).
3. Remove the black tape from the box of photographic material and pull out approximately 10 inches of material. Place the box in the bottom compartment, with the material feeding straight up and the pink emulsion side toward the machine.
4. Align the paper against the margin guide bar on the right and close the pressure plate. Push the paper that you have exposed up through the feed slot that enters into the cassette compartment (Fig. 2). Lock the pressure plate by reseating the pivot latches and replace the bottom cover (Fig. 3).
5. Advance the photographic material by depressing the red film advance button to ensure that the exposed portion of the paper or film has moved into the cassette compartment (Fig. 4). On newer EditWriter models the film advance button is a white button or switch located on the left side of the control panel (directly underneath the screen). Slide the cutter across the compartment once to cut off the exposed material.
6. Replace the cassette between the guides in the upper compartment with the cassette opening face down over the paper feed slot (Fig. 5).
7. Close the compartment cover. Again advance the material a few inches by touching the film advance button.[2] On newer models, a film counter next to the film advance switch provides a running count of paper used in tenths of an inch.

NOTE

The recommended amount of paper to be fed into a take-up cassette should not exceed 20 feet.

[2] If you have an EditWriter with the red film advance button inside the cassette compartment, be sure that you advance the photographic material before closing the compartment cover.

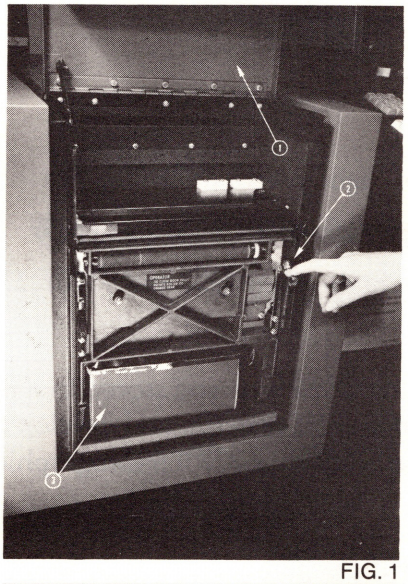


FIG. 1

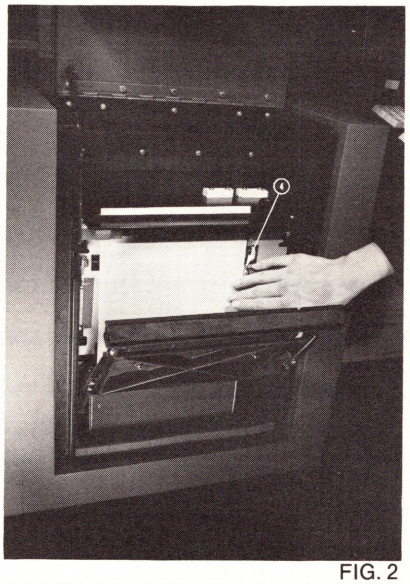


FIG. 2

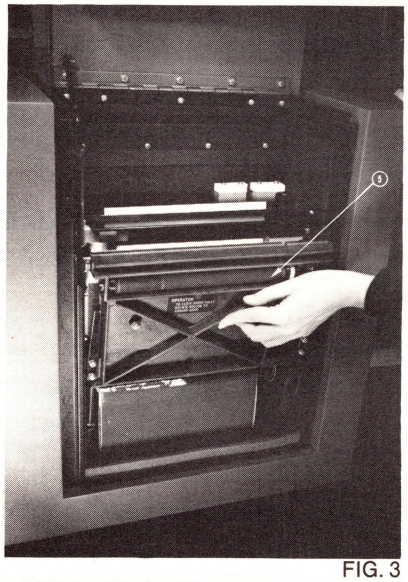


FIG. 3

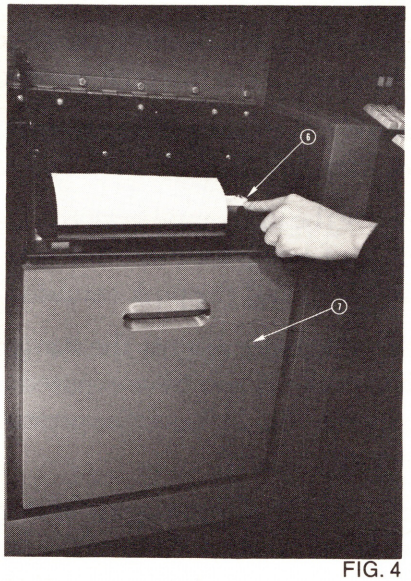


FIG. 4

FIG. 5

1. CASSETTE COMPARTMENT COVER
2. PIVOT LATCH
3. PHOTOGRAPHIC MATERIAL
4. GUIDE BAR
5. PRESSURE PLATE
6. FILM ADVANCE BUTTON (located on the Control Panel on newer EditWriter systems)
7. BOTTOM COVER
8. TAKE-UP CASSETTE

EXPOSURE CONTROLS

Although the photographing speeds of the different materials vary, the 7500 exposure can be adjusted to accommodate each. This is accomplished by using neutral density filters and an exposure control dial located in the rear of the font compartment. Filters are placed in the lens compartment between the filmstrips and the photographic material.

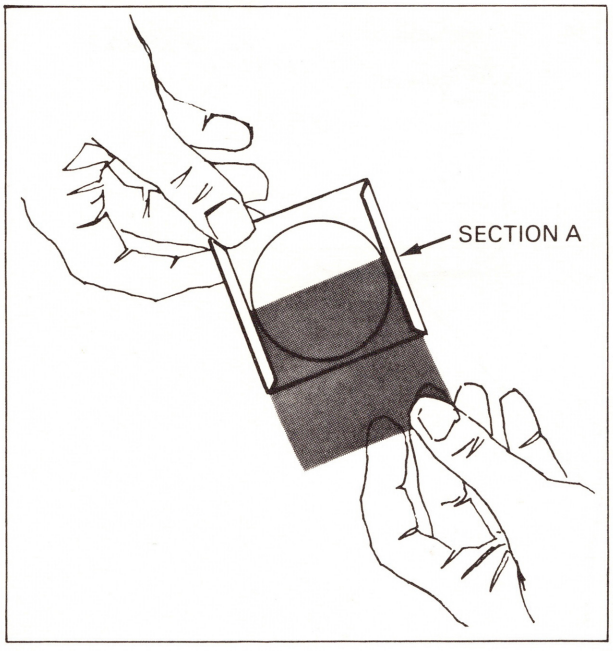
The correct filters for the different photographic materials are as follows:

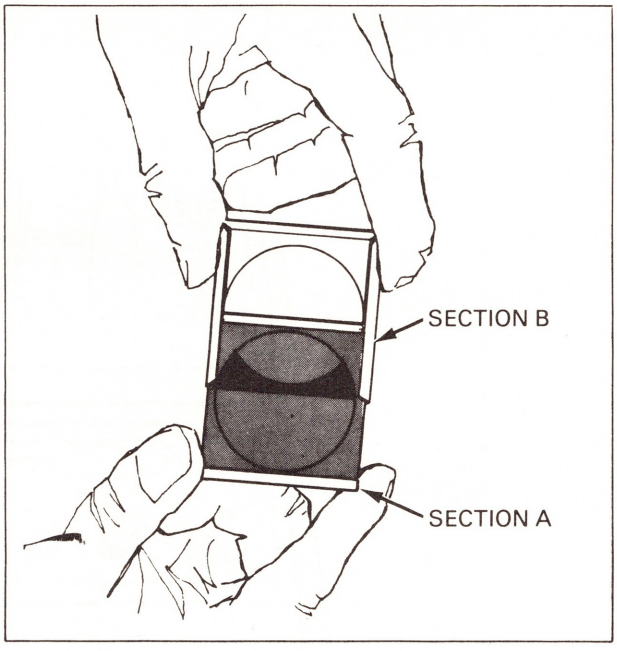
- Kodak Grade S—1.3 to 2.0 ND (neutral density).
- Kodak RC—1.3 to 2.0 ND.
- Compugraphic DuroGraphic II—0.2 to 0.6 ND.
- Compugraphic PermaGraphic—0.2 to 0.6 ND.

The EditWriter is equipped with a two piece filter holder.

To install a filter into the holder:

1. Slide the filter into Section A which has only two folded edges.
2. Slide Section A into Section B which has three folded edges. The holder is now ready to be placed into the photo unit.





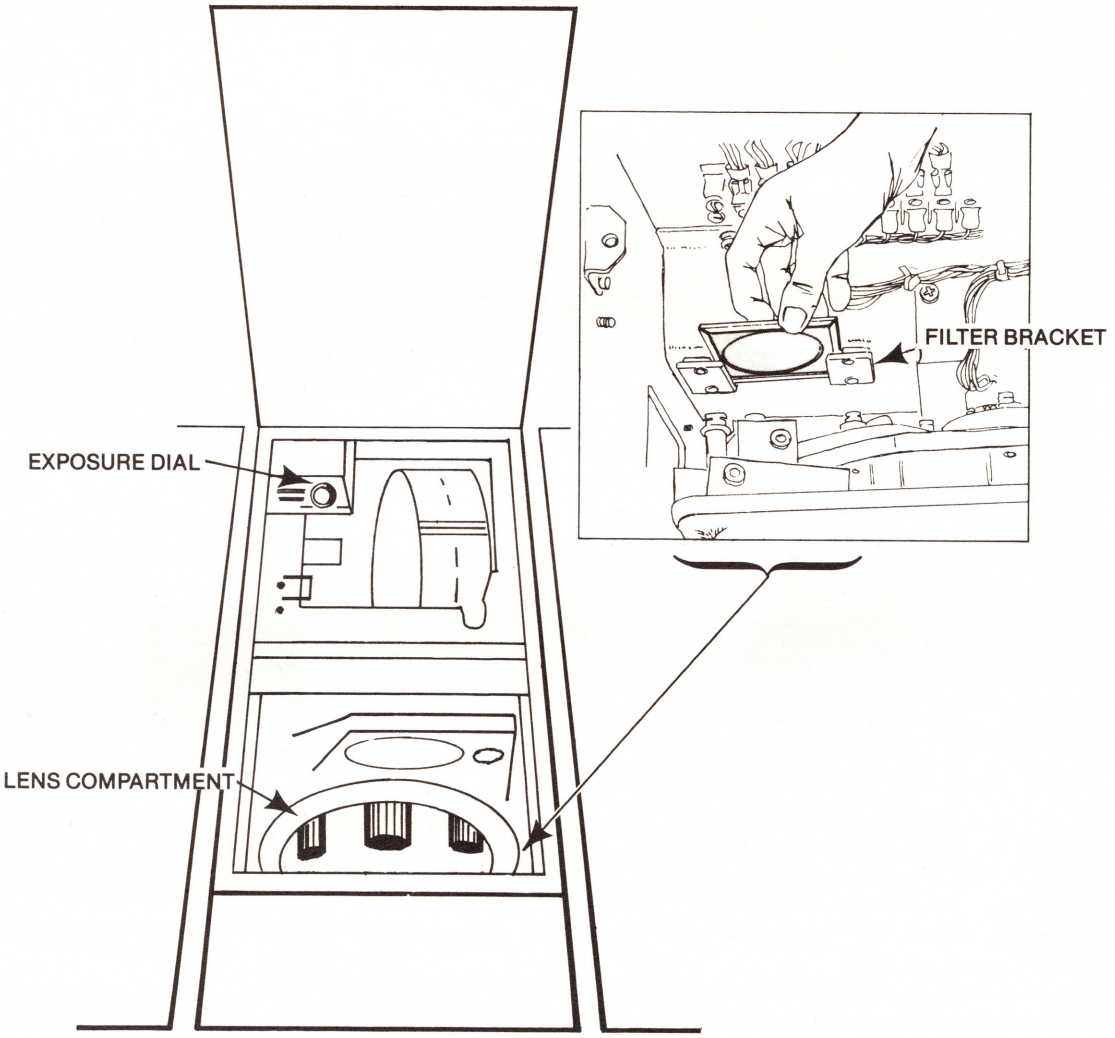
NOTE

Avoid getting fingerprints on the filter. Smudges or scratches will affect the quality of the output copy.

To insert filters into the machine:

1. Raise the font door of the photo unit.
2. Remove the black cover plate which is mounted over the lens compartment (in front of the font drum).
3. Slide the filter holder into the bracket on the forward wall of the compartment (just in front of the lens turret).
4. Replace the cover plate over the lens compartment and close the font door of the photo unit.

Once filters have been inserted, exposure can be controlled by a dial located in the rear of the font compartment. Exposure is increased by turning the dial to the right and decreased by turning the dial to the left.



FILMSTRIPS

Two filmstrips, each containing four type styles, can be installed in the photo unit of the EditWriter at any one time. Filmstrips are identified by:

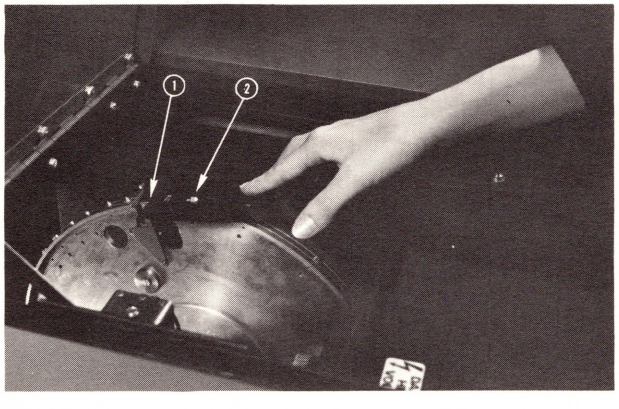
- A part number
- The names of the type style
- A selected character arrangement

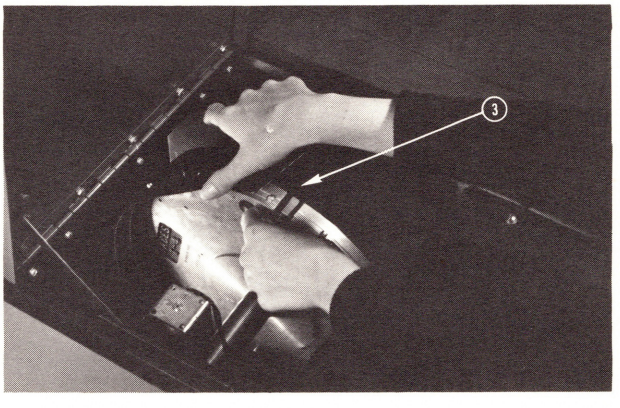
Every filmstrip is accompanied by a width card that is compatible with the character arrangement and type style of the filmstrip.

The filmstrips are mounted on the font drum and are held in place by retaining clips. Two positions are allocated for the placement of the filmstrips; either face (track) position 1-4 or 5-8, as indicated in raised letters on the sides of the font drum.

To mount the filmstrips:

1. Depress RESET and simply raise the top cover of the photo unit.[3] Do not attempt to manually stop the font wheel. Make sure that the font drum has come to a complete stop before attempting to put on or remove filmstrips.
2. Rotate the font drum until the mounting slot for the desired filmstrip position is accessible. It's best to begin with font position 1-4.
3. Placing the filmstrip in an upright position (type images to the left), attach the metal clip (on the top of the filmstrip) to the font drum spring assembly.
4. Keeping tension on the filmstrip, rotate the drum away from you, engaging the slots in the filmstrip onto the protruding font drum sprockets.





1. METAL CLIP
2. FONT DRUM SPROCKETS
3. RETAINING CLIP

[3]For high-speed EditWriters, the 7700 and the 7770, the font drum switch must first be turned Off. The locking mechanism will prevent access to the compartment until the font drum stops rotating. When the drum stops, a "click" sound signals the release of the latch.

5. When all slots are engaged, place thumb and forefinger into the round openings directly under the mounting spring assembly and squeeze to open the clip retainer. Place the bottom clip of the filmstrip onto the spring assembly and release finger pressure to secure it in place. If the filmstrip is seated properly, release of the spring assembly will lock it into place on the font wheel.

6. Manually rotate the font wheel, checking to see that the filmstrip is securely engaged on each sprocket. Use this procedure for installing both filmstrips.

NOTE

Filmstrips must be handled carefully. Holding the strip by the edges, or placing your fingers in the center, between type images and the timing marks, will prevent smudging or scratching of the characters on the filmstrip.

WIDTH CARDS

A width card contains all of the width information for characters and symbols on each filmstrip. When installing a filmstrip on the drum, make sure that the corresponding width card for that strip is installed in the proper location just below the display screen. The slot to the left is for fonts 1-4 and the right-hand slot is for fonts 5-8. Carefully slide the width card, face up, into the slot until it is seated securely.

ADJUSTMENTS

Most of the adjustments for the EditWriter can be controlled by the operator. However, feel free to contact your local Compugraphic Service Office if there are any problems.

Contrast Control

The contrast control for the display screen is located underneath the right rim of the screen. This control is used to adjust the intensity of the background and characters on the screen.

Fuse Access

The fuse panel is accessed through a fold-down door located under the keyboard. Fuse replacement should only be attempted with power to the machine Off. Fuses should only be replaced with the same type as those installed.

HOW TO BEGIN

HOW TO BEGIN

POWER ON

Power to the EditWriter is controlled by the white switch located directly under the disk drive. To activate power to the system, flip the switch to the On position. The light to the right of this switch will light up, verifying that power has been supplied.

System Reset

The RESET button is located to the right of the width cards on the front control panel. RESET clears both the screen and photo unit memories, and empties the photo unit queue (see Advanced File Management, Queuing). It is used following power up, prior to loading filmstrips, or to correct a system error in the machine. RESET also tests for the loading of paper and the proper placement of a receiving cassette in the photo unit. If there is no photographic material or cassette a "NO FILM" or "CASE" message will be indicated.

Initialization

Initialization is the procedure used to begin each job. This process clears all old information from the screen and prepares the system for the inputting of new instructions—point size, line space, font number, line length and line ending mode. As these parameters are being entered onto the screen, they are also being recorded in the Parameter Line so that they can be easily referenced by the operator during typesetting.

To initialize the EditWriter:

1. Strike INIT, EXECUTE. (The INIT key is located in the upper-left keypad.) The INIT symbol (ϟ) will appear on the first screen line followed by a request for point size (SZ=). Also, notice the small cursor in the Parameter Line, and observe that it moves as the instructions are input.
2. Type two digits for the desired point size. When this information is supplied, the system will automatically request the next instruction, line space.
3. Type three digits for line space. The first two digits represent points, the third, half-points. Half-points are always indicated by the numeral 5.
   For example: 120 = 12 points of line space
   125 = 12½ points of line space.
   The system will then request font information.
4. Type one digit (1-8) representing the font desired. The system will automatically request line length information.
5. Type four digits for line length. The first two digits represent picas, the last two, points.
   For example: 3600 = line length 36 picas
   3606 = line length 36 picas, 6 points.

6. Depress the space bar to confirm automatic line ending. The symbol $^{A}_{E}$ will appear on the first screen line and on the Parameter Line following LL=XX:XX. If you do not desire automatic line ending, do not depress the space bar. Instead, strike AUTO LINE END, in the upper-left keypad. The symbol $^{M}_{E}$ will appear on the first screen line and on the Parameter Line in the screen message area. (AUTO LINE END is an On/Off key, alternate depressions change the line ending from automatic to manual mode and vice versa.)

7. At the end of the initialization sequence the operator may choose to hit the RETURN key (located on the right side of the main keyboard), or TAB/EL (located on the upper-left side of the main keyboard). RETURN advances the photographic material the value of the line space, and the carriage returns to the left margin. TAB/EL, in the standard operating mode, is a line ending code which locks in a series of commands and returns the carriage to the left margin without activating the line space. (Both of these functions will be described in detail in subsequent tabs.)

These four parameters, point size, line space, font and line length, are sufficient to produce output from the EditWriter. The CNCL CHAR key can be used to clear any keyboarding errors made during initialization.

NOTE

For specific information on the EditWriter II and programming the EditWriter II system, refer to the appropriate tab.

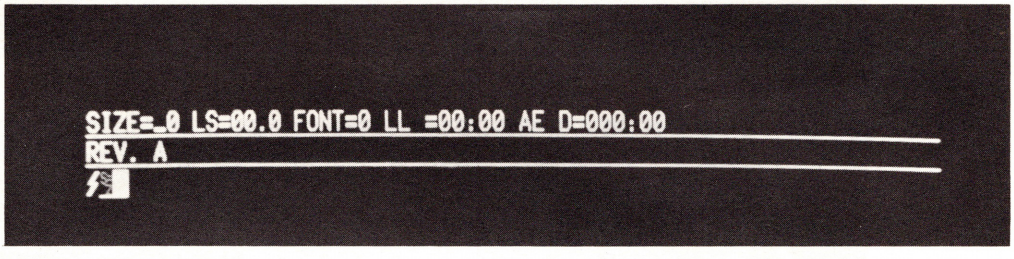
During the initialize sequence, several other conditions are automatically established:

Spaceband minimum—12 relative units (12-42)
Spaceband expansion—42 relative units (12-42)
Letterspace—ON(LO)
Character compensation—OFF/Zero Units (CX=0)
Hyphenation—ON (HO)
8 unique fonts (UF)[4]

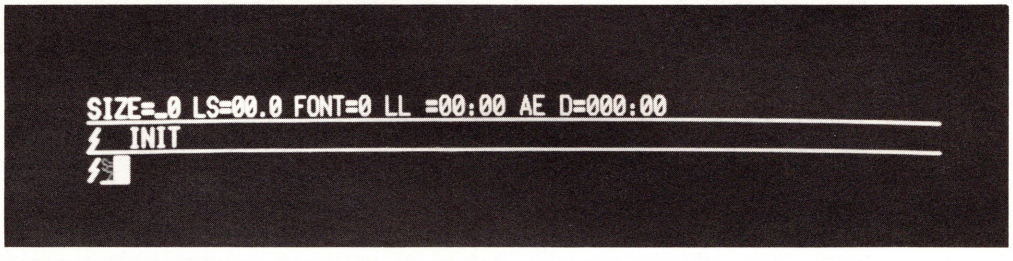
The operator may choose to change any of these conditions during initialization. The procedures will be explained on the following pages of this tab

STAGES OF INITIALIZING

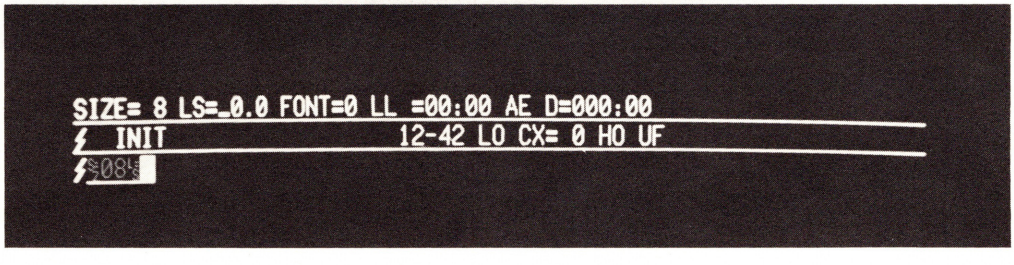
Following RESET



Following INIT/EXECUTE



Following input of SIZE information



[4]During initialization the eight track mode is established. See the 7700 tab for a more detailed explanation of the Unique/Duplicate Font Mode.

Following input of LINE SPACE information

```
SIZE= 8 LS= 9.5 FONT=_ LL =00:00 AE D=000:00
INIT                    12-42 LO CX= 0 HO UF
S08L095F
```

Following input of FONT information

```
SIZE= 8 LS= 9.5 FONT=1 LL =_0:00 AE D=000:00
INIT                    12-42 LO CX= 0 HO UF
S08L095F1L
```

Following input of LINE LENGTH information

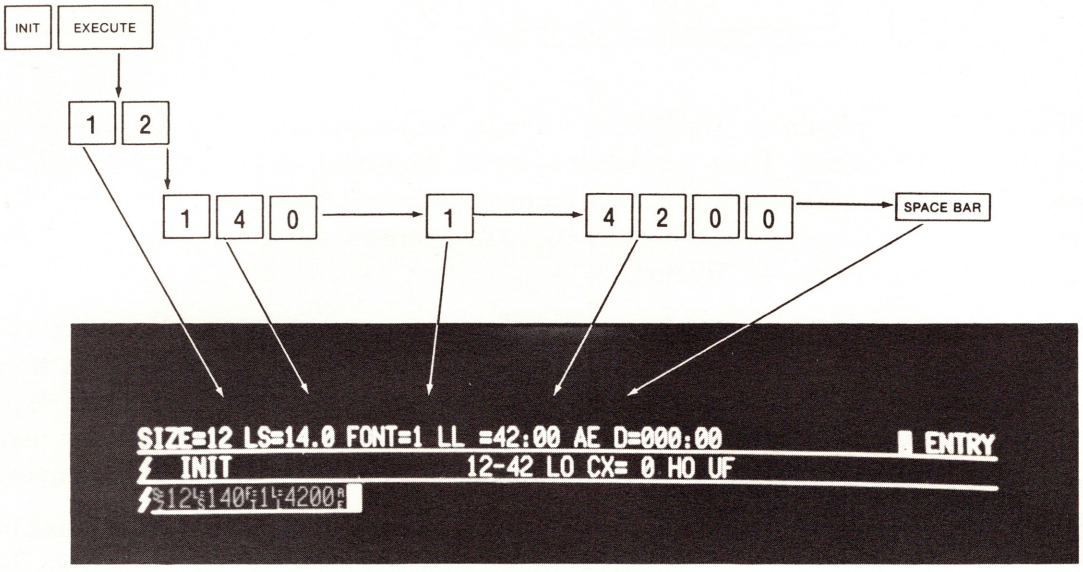
```
SIZE= 8 LS= 9.5 FONT=1 LL =24:00_AE D=000:00
INIT                    12-42 LO CX= 0 HO UF
S08L095F1L2400
```

Following confirmation of AUTOMATIC or MANUAL LINE ENDING

```
SIZE= 8 LS= 9.5 FONT=1 LL =24:00 ME D=000:00          ENTRY
INIT                    12-42 LO CX= 0 HO UF
S08L095F1L2400M
```

The following is an example of the INIT sequence:

Keystrokes:



WORDSPACE MINIMUM AND MAXIMUM

Keystrokes: PR[5] LC SPACEBAR ####[6]

Screen Symbol: P↓S R▼B=

When the EditWriter is initialized, wordspace minimum and maximum values are pre-set for normal typographic requirements. The minimum wordspace is automatically established at 12 relative units (based on a 54-unit em space) and the maximum expansion value adds 42 relative units to the minimum of 12. However, the operator may choose to decrease the minimum wordspace value to 0, or increase the maximum value to 99 units.

Use of the wordspacing function is most important when setting justified copy. Depending upon the amount of space needed to fill the line to the desired line measure, the spaces between words will range between the minimum and maximum expansion range. When the maximum expansion range has been reached, automatic letterspacing (if in effect) will be used to take up any remaining white space and justify the line. (Turn to the following page for an explanation of letterspacing.)

The standard values for minimum and maximum wordspace are displayed on the Status Line during initialization. The minimum and expansion values are separated by a hyphen (12-42). To enter different values, one of the two precedent keys is struck, followed by the spacebar and four digits. Four digits must be entered at all times regardless of whether both minimum and maximum values are to be changed. The first two digits express the minimum value, the second two digits represent the expansion value. (Refer to the Typesetting Functions tab for additional information on spaceband usage.)

[5]PREC/UC or PREC/LC can be used
[6]Throughout the manual "#" represents an unknown digit.

LETTERSPACING

Keystroke:

Screen Symbols: L O L X

During the initialize sequence, automatic letterspacing is activated and indicated by the letters LO in the Status Line. Letterspacing will be entered between all characters on a line when the maximum expansion range is not sufficient to fill the measure.

Eliminating letterspacing when setting justified text will often result in a wavy right-hand margin. However, should the operator wish to inhibit letterspacing for certain applications, the function may be deactivated by depressing LTR SPACE on the upper-left keypad. The LO in the message line (Letterspacing On) will change to LX (Letterspacing Off). Alternate depressions of this key turn the letterspacing function On and Off. L O and L X also appear on the screen (within the copy) as soon as the LTR SPACE key is depressed.

Letterspacing is entered between letters in a line in increments of one unit (1/54 of an em). Six units (6/54 of an em) is the maximum value that will be inserted between characters when letterspacing is on. If this extra spacing is not sufficient to justify the line, the word spaces will expand beyond the maximum. If there are no word spaces on the line and letterspacing is not sufficient to fill the measure, the line will be set flush left with letterspace.

CHARACTER COMPENSATION

Keystrokes: CHAR COMP SET CHAR COMP

Screen Symbols: C C = ## C O C X

Character compensation is a uniform reduction of the spacing between letters in a line. When activated, space in one-ninth point increments will be subtracted between characters in the typeset line. Character compensation is used when tighter character fit is desired, resulting in better visual appearance in the line.

Perhaps the most common application of the Character Compensation function would be for setting large headlines. Depending on size and style, the operator decides on a compensation value. The value is a matter of personal preference, dependent on the particular job. However, a general "rule of thumb" is that the compensation value be no greater than 1/3 of the point size. For example, if inputting a 36-point headline QUAD CENTER, the character compensation might be set at 12 for a sans serif face and 10 for a serif face.

Activation of character compensation is a two-step procedure. First, a value is established; the CHAR COMP SET key located in the upper-left keypad, followed by two digits from 01 to 99 enters a value into the machine memory. The value entered will be displayed in the Status Line and within the screen copy.

Once character compensation has been stored in this manner, it may be turned on at any point by striking the CHAR COMP key, located in the upper-left keypad. A second depression of the CHAR COMP key turns the function off again. The symbols C O and C X appear within the text as well as in the Status Line (CO or CX).

Stored character compensation values may be verified by striking the CHAR COMP key, which displays the message on the Status Line. If the operator chooses not to use the function at that time the CNCL CHAR key can be depressed.

NOTE

For an explanation of "kerning" reducing the amount of white space between specific letter pairs, i.e., WA and AV, refer to the functions Back and Back One Point, Typesetting Functions tab.

HYPHENATION

Keystroke: AUTO HYPH

Screen Symbols: HO HX

Hyphenation, based on a series of logic rules, is activated automatically during the initialization process. To turn hyphenation Off, the AUTO HYPH key, located in the upper-left keypad, is used. The HO (hyphenation On) displayed on the Status Line will change to HX (hyphenation Off). A second striking of AUTO HYPH will reinstate the automatic hyphenation program. The same message will appear within the copy as HO and HX.

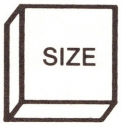
NOTE

The DH key (Discretionary Hyphen) may be used when the operator chooses to make personal decisions about hyphenation. Refer to the Typesetting Functions Tab.

PARAMETER CHANGES

Although point size, line space, font and line length are established during the initialization procedure, it may be necessary to change these parameters within a job. When any of these parameters are changed, the new values are immediately displayed on the Parameter Line. Four keys, located in the upper-right keypad, provide for these changes.

Point Size



##

The EditWriter has two standard lens configurations:
LOW RANGE: 6,7,8,9,10,11,12,14,18,24,30,36
HIGH RANGE: 6,8,10,12,14,18,24,30,36,48,60,72

Point size changes necessary after initialization are made using the SIZE key. The key is depressed, followed by two digits to indicate the point size desired (08,09,10, etc.). The point size selected must match the lens configuration of the machine. Otherwise, an error message, "WRONG POINT SIZE", will appear on the Status Line and an audible tone will sound. CNCL CHAR will clear the error and the tone, permitting entry of the correct size. There is no limitation on size mixing within a line.

Line Space

###

Line spacing may be changed within a job by keying LINE SPACE and entering three digits. The first two digits specify points, the third, half-points. Half-points are indicated by keying the number 5. The new line space setting will take effect with the first RETURN keyed *after* the entry.

Typeface

#

Typeface changes made after the initialization procedure are entered by keying FONT and a single digit, 1-8. The digit corresponds to the font position on one of the two filmstrips. There is no limitation on type style mixing within a line.

Line Length

#####

Line length can be changed by striking the LINE LGTH key, followed by four digits. The first two digits represent picas, the last two, points (i.e., 36½ picas =3606). Line Length changes must be made at the beginning of the line *before* any copy has been entered.

FILE MANAGEMENT

FILE MANAGEMENT

THE DISK

A single floppy disk is used to store copy and instructions entered from the EditWriter keyboard. Each disk has a storage capacity of 300,000 characters or 128 files. A "file" is an individual section named by the operator. The size of each file is determined by the operator, and may be reduced or expanded during the editing process. There is no limit to the number of characters that can be stored in an individual file other than the capacity of the disk itself. However, files of more than 6,000 characters must be stored in segments (records) of 6,000 characters or less. (Refer to the Advanced File Management tab.) An indication of the percentage of characters stored on the disk is displayed on the screen when the Index is called. A "DISK FULL" message will appear when either 128 files or 300,000 characters are stored, whichever value comes first. (Refer to Appendix D, Error Messages.)

To ensure the prolonged life of the disk, the following precautions should be taken:

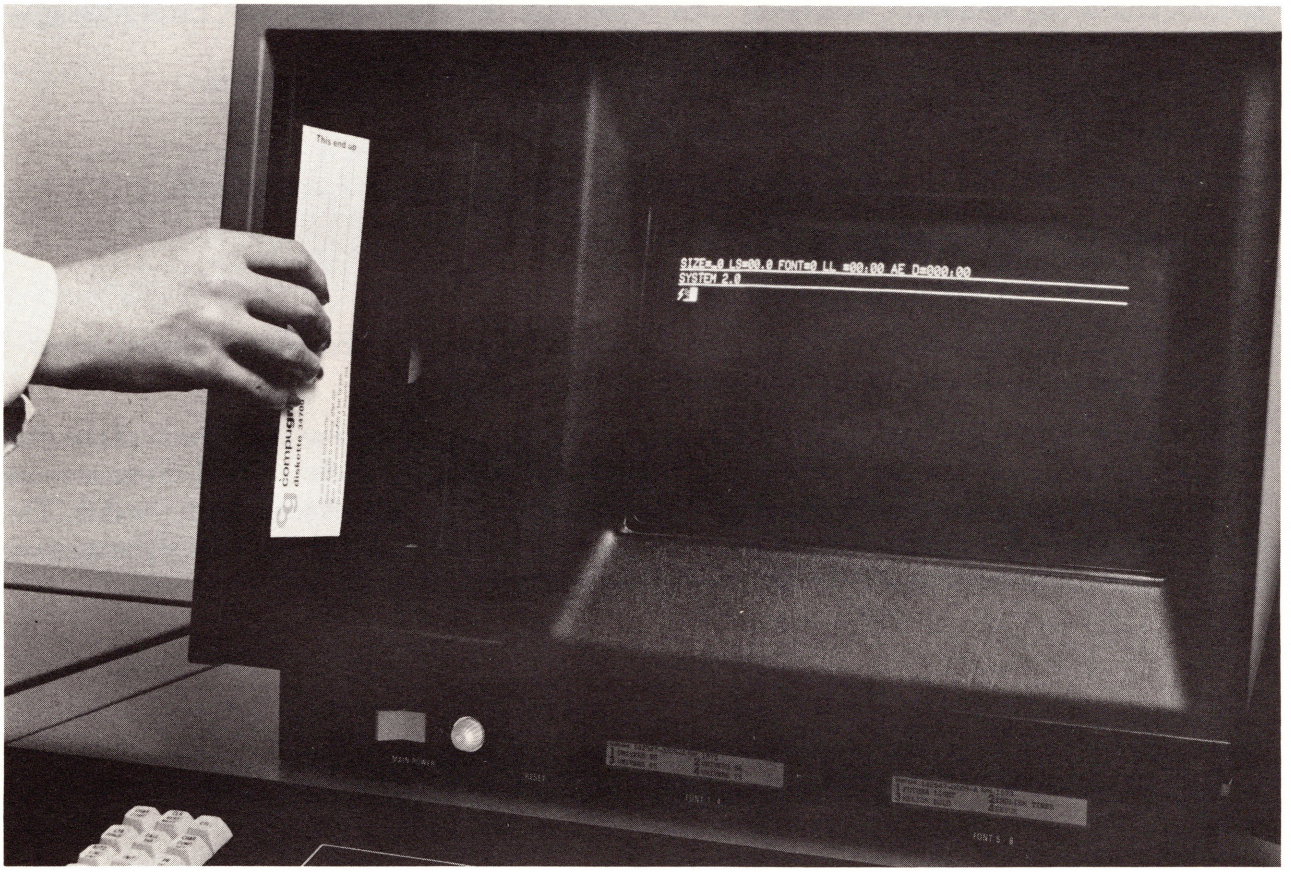
1. Return the disk to its storage envelope when not in use.
2. Keep the disk away from magnetic fields, or materials that are easily magnetized.
3. Always use a felt tipped pen to write on the label.
4. Keep disks away from direct heat or sunlight.
5. Only Compugraphic approved disks are authorized for use on the EditWriter. Unauthorized disks can cause damage to the drive head and to the disks.

Each disk contains a "write permit tab" that covers a square cut out area at the bottom of the disk. The tab permits the disk to record data, and should not be removed under normal circumstances. However, if the write permit tab is removed, copy cannot be added to or deleted from the disk. This ensures that a valuable disk cannot accidently be erased. It is recommended that this tab be removed from program disks and other disks that are stored for a long period of time between use.

INSERTING A DISK

To insert a disk into the disk drive:

1. Open the door of the disk drive by pressing the latch release bar to the left of the door.
2. Remove the disk from its envelope and check that the write permit tab is securely in place.
3. Slide the disk into the disk drive with the label facing toward the screen. Observe the "This end up" notation.
4. Close the door of the disk drive by pushing it to the left until securely latched.



INITIALIZING/ERASING A DISK

Before a disk can be used for the first time, it must be initialized. Initializing a disk prepares the disk to accept information. During the initialization process all previously recorded data will be removed from the disk.

To initialize a disk:

1. Place the disk in the disk drive.
2. Strike CALL INDEX, EXECUTE to verify that the disk does not contain information you wish to save. If you get no response, hit RESET. If an Index appears, decide whether you really want to erase those files.
3. Strike ERASE DISK. (The screen will display the message "ERASE?") It's asking whether you are sure you want to continue the procedure.
4. This time strike ERASE DISK, EXECUTE. (The screen will display the message "ERASE DISK.") When the initialization is complete, the message "COMPLETED" will appear.
5. To verify the erase procedure CALL INDEX again. A "0 PERCENT USED" message should appear in the screen message area and no file names should appear on the screen.

Erase Disk

Once a disk is obsolete, it can be erased and re-used by following the procedure for initializing a disk (see above). To verify erasure, the operator may call the disk Index. If no file names appear, the erasure is complete.

FILE INDEX

The EditWriter creates an index of all file names on the disk. This index allows the operator to keep track of the typesetting projects stored on each disk. As files are added and deleted, the index is automatically updated. Also, all file names created using the "SAVE BLOCK" routine are listed in the index. (Refer to Advanced File Management, Block Routines.)

To call the index to the screen:

Strike CALL INDEX, EXECUTE. The index appears on the screen accompanied by a message that indicates what percent of the character capacity of the disk has been used.

Up to 128 file names can be resident on the disk at one time. However, this amount is not indicated in the screen message area. The actual number of file names on the index is determined by making a manual count.

```
SIZE= 0 LS= 0.0 FONT=0 LL = 0:00 AE D=  0:00
^  INDEX                    29 PERCENT USED
   1          2          PUB 1      PUB 2      PUB 3
   PUB 4      PUB 5      PUB 6      PUB 7      PUB 8
   COMM 1     COMM 2     COMM 3     COMM 4     COMM 5
   COMM 6     COMM 7     COMM 8     INPLNT 1   INPLNT 2
   INPLNT 3   INPLNT 4   INPLNT 5   INPLNT 6   INPLNT 7
   INPLNT 8   INPLNT 9   INPLT 10   NEWS 1     NEWS 2
   NEWS 3     NEWS 4     NEWS 5     J 4974     rev p4
   PUB 9      rev p9     rev i8     rev ld     se
   EDIT       finale     st         de         re
   PUB 10     be         b          Don        x
   76-4/16    FRANK      01         °±         NOW
   g          ⁰ screen
```

For several reasons it is a good idea to CALL INDEX before entering copy as a file, or perhaps, even before beginning a new job. Check the message area to see what percentage of the disk has been used. Always leave some room on the disk for corrections and editing. If the percentage used nears 80 percent, it would be a good idea to start a new job on a clean disk. Use your discretion. If there are going to be major changes or revisions then maybe the disk should be put aside when it is 70 percent used. Also, the operator might want to make a quick visual count of the number of file names used as well as the actual names themselves (so as to avoid the message "FILE NAME IN USE"). It's possible, too, that several of the files are no longer needed. At this time they can be deleted (see Deleting A File, p. 41) to make room for new copy.

ENTERING A FILE AND TYPESETTING

As copy is keyboarded, it is stored in the screen memory of 200 lines or 6,000 characters. When the memory is nearly full the EditWriter screen warns the operator. An audio tone is activated and the letters "C" (followed by 3 digits) and "L" (followed by 2 digits) appear in the message area indicating that the memory has room for only 25 more lines or 500 more characters before becoming full. Both responses are signals that the copy must be transferred to the disk, photo unit, or both the disk and the photo unit simultaneously. As the countdown continues and C=250 and/or L=2, the EditWriter goes into EDIT mode, the screen becomes "sluggish" and a tone is sounded on every keystroke. If the operator ignores these warnings the message "MEMORY FULL" appears, offering the user a final opportunity to direct copy to the disk, photo unit or both.

When C=0 and/or L=0, no more copy can be added to the screen. Only 32 keystrokes remain until the keyboard buffer memory is full. The operator can try to move the cursor and save the copy until the message "KEYBOARD FULL" appears. When this happens, no keys can be accessed. The keyboard is "locked up." Only the RESET switch will clear the screen; and all copy in the screen buffer will be lost!

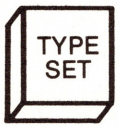
Although it is possible to by-pass the disk and direct copy exclusively to the photo unit, this would furnish only typeset copy. Should any editing be required, the entire job would have to be rekeyboarded. To avoid rekeyboarding, it is recommended that all typesetting projects be recorded on the disk. If this is done, they may be edited as often and as extensively as necessary without rekeyboarding the entire job.

To enter copy as a file (from screen to disk only):

1. Place the cursor after the last line of copy to be entered on the disk. Key: LIMIT, SCRL UP. (Both keys are located in the Editing Keypad.)
2. Strike the ENTER FILE key. The Status Line will display the message "ENTER FILE" and either "WITH COPY" or "WITHOUT COPY." "WITH COPY" indicates that the file will be sent both to the disk and the photo unit simultaneously. "WITHOUT COPY" indicates that the file will be sent only to the disk, to be typeset at a later time.
3. If the Status Line displays the message "WITH COPY," strike the TYPESET key (located in the File Management keypad) to select the "WITHOUT COPY" condition. (The TYPESET key is an On/Off key which controls the flow of copy to the photo unit.)
4. Keyboard a one- to eight-character file name. As the name is keyboarded, it appears next to the "ENTER FILE" message. If an error is made while keyboarding the file name, CNCL CHAR can be used to correct the error.
5. Strike the EXECUTE key. Striking EXECUTE completes the transfer of material from the screen to the disk.

   If the selected file name has already been used, the message "FILE NAME IN USE" will be displayed in the Status Line. The operator must then go back to step 2 and select another name before the transfer to the disk can take place.

6. To check if your copy has actually been entered as a file, CALL INDEX, EXECUTE. The file name you've chosen should appear on the screen in the Index listing.



To store and typeset files simultaneously:

1. Place the cursor after the last line of copy to be entered on disk. Key: LIMIT, SCRL UP.
2. Strike the ENTER FILE key. The Status Line will display the message "ENTER FILE" and either "WITH COPY" or "WITHOUT COPY."
3. If the Status Line displays the message "WITHOUT COPY," strike the TYPESET key to select the "WITH COPY" condition. (The "WITHOUT COPY" condition is automatically established during initialization. The operator selects "WITH COPY" by striking the TYPE-SET key. The selected condition will remain in effect until the operator strikes the TYPESET key again, or until the EditWriter is reset or initialized.)
4. Keyboard a one- to eight-character file name. As this name is keyboarded, it appears next to the "ENTER FILE" message.
5. Strike the EXECUTE key. Striking EXECUTE completes the transfer of material from the screen to the disk and to the photo unit if the "WITH COPY" condition has been chosen.

   If the selected file name has already been used, the message "FILE NAME IN USE" will be displayed in the Status Line. The operator must go back to step 2 and select another name before the transfer can take place.

To transfer copy directly from screen to photo unit:

1. Place the cursor after the last line of copy to be typeset. Key: LIMIT, SCRL UP.
2. Strike SET FILE, EXECUTE to transfer copy from the screen to the photo unit. (Copy will not be recorded on the disk.)

NOTE

As a precaution, it is recommended that Film Feeds from the keyboard be included at the end of files that are to be typeset. This is to allow for some extra photographic material between jobs. Film Feed is activated by using the FILM FEED key (located in the lower-right File Management keypad) combined with SET FILE, EXECUTE. If this keystroke sequence is activated immediately after RESET, an invalid command will be indicated. This occurs because RESET causes the initialization sequence to appear on the screen. Thus, the keyboard memory must first be cleared using CLEAR MEMORY, EXECUTE. If the message is ignored and SET FILE is activated, a photo unit error message (P2 ERROR) will appear. An alternate method of advancing photographic material would be to use the continuous Film Feed button on the Control Panel of newer EditWriter models.

CALLING A FILE

Files stored on the disk may go through many editing phases before a galley of type is finally approved. In order for any changes to be incorporated into a file, a file name must be called directly to the screen.

To call a file to the screen:

1. Strike the CALL FILE key, located in the lower-right keypad.
2. Type the one- to eight-character file name exactly as it appears on the Index.
3. Strike the EXECUTE key. The entire file (if one record), or the first record of a file (if there are several records) will scroll onto the screen. (If a file has Auto tabs, see Tabular Composition, it will scroll onto the screen 2 times before it stops.) When the file (or record) has been read into the buffer memory, the last 13 lines of copy will be displayed on the screen. To access other portions of the job use the SCRL UP and SCRL DOWN keys located in the Editing Keypad. If the operator wants to get to the start of the job, the first 13 lines of the file can be accessed by keying LIMIT, SCRL DOWN.

   If the name has not been keyboarded correctly after CALL FILE, the message "NO SUCH FILE" will be displayed in the Status Line.
4. When the "CALL FILE" message appears in the Status Line it will be followed by the file name "in quotes" to which the machine is addressed. Subsequent records of the file can be called by striking the EXECUTE key. If a message other than "CALL FILE" appears in the Status Line, the keystroke sequence CALL FILE, EXECUTE will display the next record. However, be sure that the file name that appears at this time is the file that was originally named in Step 2. The file name must not be typed again. If it is, the first record will appear on the screen.

NOTE

To assist the operator in identifying the correct file name, the Index can be displayed on the screen first by keying CALL INDEX, EXECUTE. Any file (from this listing) can then be selected and called using the above procedure.

REPLACING A FILE

To maintain an updated version of the file at all times, it is recommended that the operator replace onto the disk any copy that has been edited. Copy called to the screen is only an "electronic carbon copy" of the record contained on the disk. Any changes that are made on the screen copy do not automatically become a permanent record. Each file or record must be returned to storage with the replace file routine.

To replace copy on the disk:

1. Place the cursor at the end of the copy to be replaced and strike REJUST, EXECUTE. Since editing procedures may have altered the text, original line ending decisions may no longer be valid. For this reason, copy should always be rejustified before it is replaced on the disk.
2. Strike the REPL FILE key, located in the lower-right keypad. The Status Line will display the message "REPLACE FILE," either "WITH COPY" or "WITHOUT COPY" depending on whether or not copy will be typeset as it is replaced on the disk. A file name will appear next to the Replace File message. Be sure that this is the file you wish to replace.
3. Strike the TYPESET key to choose "WITH COPY" or "WITHOUT COPY."
4. Strike the EXECUTE key. Striking the EXECUTE key completes the transfer of the corrected copy from the screen to the disk, and also to the photo unit if the "WITH COPY" condition has been chosen.

NOTE

For several reasons an operator might choose to enter and store the updated version of a file as a second file rather than replacing the original. This is done by using the Enter File procedures, p. 37. It is suggested that the second version be named as a revision file so that it is easily identifiable. For example: the original file name is "7500" and the second version is named "7500rev" or "7500a," etc.

DELETING A FILE

When a file is no longer needed, it should be erased from the disk to allow room for new material. It is a good practice to check the disk Index every so often to see whether any files may be deleted.

To delete an entire file from the disk:

1. Strike the DEL FILE key, located in the lower-right keypad.
2. Type the one- to eight-character file name exactly as it appears on the Index.
3. Strike the EXECUTE key to complete the deletion. The file will be removed from the disk, and its name will be removed from the Index.

NOTE

Refer to Advanced File Management tab for the procedure for deleting "records" of a file.

TYPESETTING FUNCTIONS

TYPESETTING FUNCTIONS

All of the typesetting functions of the EditWriter are described in this tab. An explanation of the purpose of each function is followed by an appropriate exercise. Each exercise has three components: Marked Copy, Keyboarding Instructions, and Typeset Copy. The operator must first examine the Marked Copy to determine which parameters to enter. For example, 12/14 Helios x 18 FL is an indication that the type is to be set flush left on an 18-pica line measure in point size 12, Helios face, with the line space at 140. The Keyboarding Instructions that follow provide a step-by-step approach to inputting the exercise and the operator can then compare his output to the Typeset Copy shown.

Because Helios is a common type style, it has been taken for granted that every EditWriter in use has a Helios face in Font 1. However, this may not necessarily be true in every situation. If a different style is used, line endings and the appearance of your copy might vary slightly from the typeset version. The initialization sequence, in all of the exercises, has been ended with a Return command. The photographic material advances the stored line space value immediately after Return is keyed.

QUADDING

Quadding is the positioning of a line of type on a designated line measure. Blank space is inserted, whenever necessary to position the line on the preset measure. Copy can be quadded left, right or center by simply striking a quadding key and an end line instruction.

Quad Left

The QUAD LEFT key, located on the upper-left side of the main keyboard, is used to position copy flush against the left margin. When this function is in operation, interword spacing can be increased up to six units above the minimum. This minimum refers to either the EditWriter default minimum or the minimum set by the operator. The actual amount of interword spacing will depend on how much copy is positioned within the specified line length. All remaining white space is positioned to the right of the copy.

QUAD LEFT, RETURN positions copy on the left margin, activates the photographing of characters and advances the photographic material according to the line space specified.

Exercise: Set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.

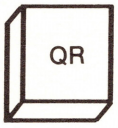
12/14 Helios x 18 FL.

```
The term quadding
originates from hand set
composition, where metal blocks
called quads were used to fill in
blank spaces.  The QL/RETURN
quads copy to the left.
```

MARKED COPY

KEYBOARDING INSTRUCTIONS	TYPESET COPY
ϟ [SIZE] 12 [LINE SPACE] 140 [FONT] 1 [LINE LGTH] 1800 [SPACE BAR] [RET] The term quadding [QL] [RET] originates from hand set [QL] [RET] composition, where metal blocks [QL] [RET] called quads were used to fill in [QL] [RET] blank spaces. The QL/RETURN [QL] [RET] quads copy to the left. [QL] [RET]	The term quadding originates from hand set composition, where metal blocks called quads were used to fill in blank spaces. The QL/RETURN quads copy to the left.

Quad Right



The QUAD RIGHT key, located on the left of the main keyboard, is used to position copy flush against the right margin. When this function is in operation, interword spacing can be increased up to six units above the minimum. This minimum refers to either the EditWriter default minimum or the minimum set by the operator. All remaining white space is positioned to the left of the copy.

QUAD RIGHT, RETURN positions copy on the right margin, activates the photographing of characters, and advances the photographic material according to the line space specified.

Exercise: Set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.

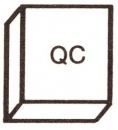
12/14 Helios
X18 FR.

```
The term quadding
originates from hand set
composition, where metal blocks
called quads were used to fill in
blank spaces.  The QR/RETURN
quads copy to the right.
```

MARKED COPY

KEYBOARDING INSTRUCTIONS	TYPESET COPY
ϟ [SIZE] 12 [LINE SPACE] 140 [FONT] 1 [LINE LGTH] 1800 [SPACE BAR] [RET] The term quadding [QR] [RET] originates from hand set [QR] [RET] composition, where metal blocks [QR] [RET] called quads were used to fill in [QR] [RET] blank spaces. The QR/RETURN [QR] [RET] quads copy to the right. [QR] [RET]	The term quadding originates from hand set composition, where metal blocks called quads were used to fill in blank spaces. The QR/RETURN quads copy to the right.

Quad Center



The QUAD CENTER key, located on the left of the main keyboard, is used to center copy on the line measure. When this function is in operation, interword spacing can be increased up to six units above the minimum. This minimum refers to either the EditWriter default minimum or the minimum set by the operator. All of the remaining white space is divided equally to the left and right of the copy.

Striking QUAD CENTER, RETURN positions copy in the center of the line measure, activates the photographing of characters, and advances the photographic material according to the line space specified.

Exercise: Set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios
X 18
center

```
The term quadding
originates from hand set
composition, where metal blocks
called quads were used to fill in
blank spaces.  The QC/RETURN
centers copy.
```

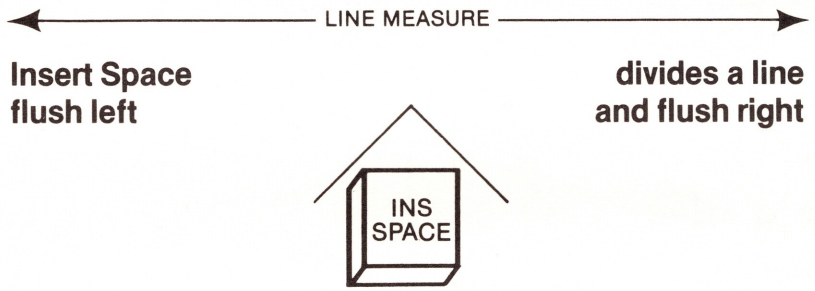
MARKED COPY

ϟ [SIZE] 12 [LINE SPACE] 140 [FONT] 1 [LINE LGTH] 1800 [SPACE BAR] [RET] The term quadding [QC] [RET] originates from hand set [QC] [RET] composition, where metal blocks [QC] [RET] called quads were used to fill in [QC] [RET] blank spaces. The QC/RETURN [QC] [RET] centers copy. [QC] [RET]	The term quadding originates from hand set composition, where metal blocks called quads were used to fill in blank spaces. The QC/RETURN centers copy.
KEYBOARDING INSTRUCTIONS	**TYPESET COPY**

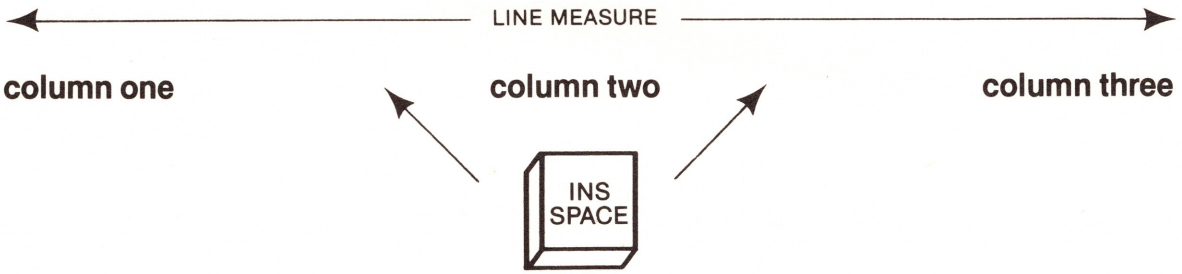
INSERT SPACE

The INSERT SPACE function is also used to position copy. The INS SPACE key is located on the main keyboard, just to the right of the RETURN key. It is used to distribute leftover white space at one or more locations within the line. No other quadding codes can be used in a line containing INSERT SPACE. INSERT SPACE differs from the other positioning instructions because no space-band expansion take place when it is used.

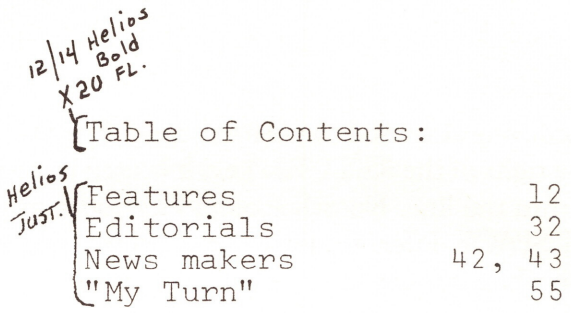
- If INS SPACE is depressed following a line of copy, the line is flush left.
- If INS SPACE precedes a line of copy, the line is flush right.
- If INS SPACE is used in the middle of a line, copy is positioned flush left and flush right.



- If INS SPACE is used more than once in a line, an equal amount of white space goes into each location where it is keyed.



Exercise: Set the following copy, line for line, as shown on the markup. Enter all typesetting parameters as indicated.



MARKED COPY

KEYBOARDING INSTRUCTIONS	TYPESET COPY
ϟ [SIZE] **12** [LINE SPACE] **140** [FONT] **4** [LINE LGTH] **2000** [SPACE BAR] [RET]	**Table of Contents:**
Table of Contents: [QL] [RET]	Features 12
[FONT] **1** Features [INS SP] 12 [RET]	Editorials 32
Editorials [INS SP] 32 [RET]	Newsmakers 42, 43
Newsmakers [INS SP] 42, 43 [RET]	"My Turn" 55
"My Turn" [INS SP] 55 [RET]	

NEAT COMPOSITION (Automatic Quadding)

A series of consecutive lines can be automatically quadded to the left, right or center without the need to manually position each line with a quadding key. Neat left text, copy aligned at the left margin, is all quadded left and has a ragged right edge. Material that is neat right is all quadded right and has a ragged left edge. Neat center text is all quadded center within a given line measure.

Interword space will automatically increase six units above the minimum value when setting neat composition. Automatic hyphens will be inserted unless the program has been turned off, using the AUTO HYPH key (located on the Initialization Keypad).

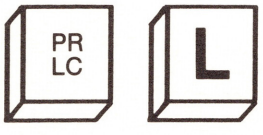
NOTE

Normal quadding (Quad Left, Quad Right, Quad Center) or insert keys must not be used when setting automatic neat composition. The effect is a double quadding command in one line, which is unacceptable to the system.

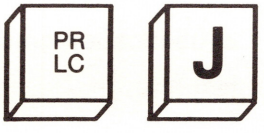
Neat Left

Flush left composition can be set by inserting the neat left instruction before typing copy. PREC[7], L are the keystrokes used to enter this instruction. PREC, J are the keystrokes used to return to the justified mode.

To set neat left composition:



To return to the justified mode:



[7]When used to address function codes PREC/UC or PREC/LC can be used. The Precedent key is case conscious only when accessing pi characters and symbols (see p. 8).

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios
X18 FL.

Neat left copy can be set by inserting the neat left command. All copy will be automatically quadded to the left. There will be no hyphens in the typeset copy if the automatic hyphenation program has been turned off. The neat left program is deactivated by typing a justification command after the return in the last line.

MARKED COPY

ϟ [SIZE] **12** [LINE SPACE] **140** [FONT] **1** [LINE LGTH] **1800** [SPACE BAR] [AUTO HYPH] [RET]

[PR LC] **L** Neat left copy can be set by inserting the neat left command. All copy will be automatically quadded to the left. There will be no hyphens in the typeset copy if the automatic hyphenation program has been turned off. The neat left program is deactivated by typing a justification command after the return in the last line. [RET]

[PR LC] **J**

KEYBOARDING INSTRUCTIONS

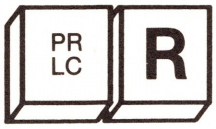
Neat left copy can be set by inserting the neat left command. All copy will be automatically quadded to the left. There will be no hyphens in the typeset copy if the automatic hyphenation program has been turned off. The neat left program is deactivated by typing a justification command after the return in the last line.

TYPESET COPY

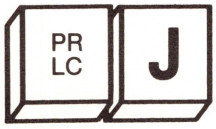
Neat Right

Flush right composition can be set by inserting the neat right instruction before inputting copy. PREC, R are the keystrokes used to enter this instruction. PREC, J are the keystrokes used to return to the justified mode.

To set neat right composition:



To return to the justified mode:



Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios
X18 FR.

```
Neat right copy can be set by inserting the neat
right command.  All copy will be automatically
quadded to the right.  There will be no hyphens
in the typeset copy if the automatic hyphenation
program has been turned off.  The neat right program
is deactivated by typing a justification command
after the return in the last line.
```

MARKED COPY

ϟ [SIZE] **12** [LINE SPACE] **140** [FONT] **1** [LINE LGTH] **1800** [SPACE BAR] [AUTO HYPH] [RET]

[PR LC] **R** Neat right copy can be set by inserting the neat right command. All copy will be automatically quadded to the right. There will be no hyphens in the typeset copy if the automatic hyphenation program has been turned off. The neat right program is deactivated by typing a justification command after the return in the last line. [RET]

[PR LC] **J**

KEYBOARDING INSTRUCTIONS

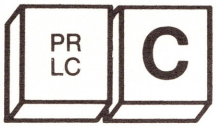
Neat right copy can be set by inserting the neat right command. All copy will be automatically quadded to the right. There will be no hyphens in the typeset copy if the automatic hyphenation program has been turned off. The neat right program is deactivated by typing a justification command after the return in the last line.

TYPESET COPY

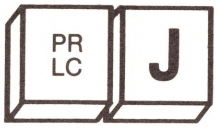
Neat Center

Neat center composition can be set by inserting the neat center instruction before typing copy. PREC, C are the keystrokes used to enter this instruction. PREC, J are the keystrokes used to return to the justified mode.

To set neat center composition:



To return to the justified mode:



Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios
X18
center

```
Neat center composition can be set by inserting
the neat center command.  All copy will be
automatically centered.  There will be no
hyphens in the typeset copy if the automatic
hyphenation program has been turned off.  The
neat center program is deactivated by typing
a justification command after the return in
the last line.
```

MARKED COPY

SIZE **12** LINE SPACE **140** FONT **1** LINE LGTH **1800** SPACE BAR AUTO HYPH RET

PR LC **C** Neat center copy can be set by inserting the neat center command. All copy will be automatically centered. There will be no hyphens in the typeset copy if the automatic hyphenation program has been turned off. The neat center program is deactivated by typing a justification command after the return in the last line. RET

PR LC **J**

KEYBOARDING INSTRUCTIONS

Neat center copy can be set by inserting the neat center command. All copy will be automatically centered. There will be no hyphens in the typeset copy if the automatic hyphenation program has been turned off. The neat center program is deactivated by typing a justification command after the return in the last line.

TYPESET COPY

JUSTIFIED COMPOSITION

Justified composition is made up of typeset lines which are flush with both the left and right margins. The EditWriter varies the space between words (wordspacing) and the space between letters (letterspacing) in order to expand the lines to the full line measure set in the machine. To set justified copy on the EditWriter, either the automatic or the manual line ending mode is used.

Automatic Line Ending

The automatic line ending mode is the standard method for operating the EditWriter. It is activated automatically during the initialize sequence when the operator depresses the space bar immediately after entering the four basic typesetting parameters. The letters AE appear (following LL=XX:XX) in the Parameter Line, indicating that the automatic line ending mode is in effect.

When the EditWriter is in the automatic line ending mode, the JUSTIFICATION RANGE message will appear, signaling the approach of the end of a line. When justification range is reached, the system will automatically determine where to end the line. Because the last line in a paragraph may not be a full line of copy, it must be manually quadded by striking QUAD LEFT, RETURN.

When setting type in the automatic line ending mode, automatic hyphenation and/or discretionary hyphenation may be used. If copy set in the automatic line ending mode is edited, it may be rejustified automatically by the system (depress REJUST, EXECUTE).

Exercise: Set the following paragraph using the automatic line ending mode.

10/12 Helios L.E. X18 Just.

```
This is an example of justified composition.
All lines are of uniform line length. Justification is
accomplished by expanding the space between words.
The number of characters in each line will vary, so
the interword space will be different on each line.
When a word cannot fit at the end of a justified line
the logic of the system will try to hyphenate the
word. If the word cannot be hyphenated, the line could
be justified with both interword space and letterspacing.
The last line of the paragraph is ended with the quad
left and return keys.
```

MARKED COPY

ϟ [SIZE] **10** [LINE SPACE] **120** [FONT] **3** [LINE LGTH] **1800** [SPACE BAR] [RET]

This is an example of justified composition.
All lines are of uniform line length. Justification is accomplished by expanding the space between words. The number of characters in each line will vary, so the interword space will be different on each line. When a word cannot fit at the end of a justified line the logic of the system will try to hyphenate the word. If the word cannot be hyphenated, the line could be justified with both interword space and letterspacing. The last line of the paragraph is ended with the quad left and return keys. [QL] [RET]

KEYBOARDING INSTRUCTIONS

This is an example of justified composition. All lines are of uniform line length. Justification is accomplished by expanding the space between words. The number of characters in each line will vary, so the interword space will be different on each line. When a word cannot fit at the end of a justified line the logic of the sytem will try to hyphenate the word. If the word cannot be hyphenated, the line could be justified with both interword space and letterspacing. The last line of the paragraph is ended with the quad left and return keys.

TYPESET COPY

Manual Line Ending

The manual line ending mode requires each line to be manually ended with a return. This mode is seldom used because the automatic mode allows the operator to check all line ending and hyphenation decisions before copy is sent to the phototypesetter. The manual line ending mode may be activated during the initialize sequence by striking the AUTO LINE END key (located in the Initialization keypad) immediately after the four basic typesetting parameters. The letters ME appear in the Parameter Line (following LL=XX:XX), indicating the manual line ending mode is in effect. The The AUTO LINE END key works as a reversing key to change from automatic to manual line ending mode or vice versa.

When the EditWriter is in the manual line ending mode, the operator must pay close attention to the JUSTIFICATION RANGE message and the accompanying tone that signals the approach of the end of the line. At the next convenient point in the copy, the operator should end the line by striking RETURN. To avoid large word spaces, lines should not be ended before the JUSTIFICATION RANGE is indicated. Because the last line in each paragraph may not be a full line of copy, it should be quadded left. Depress QUAD LEFT prior to striking RETURN.

Should the operator type more characters than will fit in the selected line measure, the line will overset and the machine will stop counting and go into EDIT mode. This condition is indicated by the OVERSET message and an audible tone. The locked condition can be removed only by using the CNCL CHAR key to erase the characters that will not fit within the measure.

If the oversetting word can be hyphenated, insert a manual hyphen before striking the RETURN key. If no hyphenation point is available in the oversetting word, the line should be ended just prior to the last word space that will fit in the line. Automatic hyphenation is not functional in the manual line ending mode, and copy set in this manner cannot be rejustified by the system.

DISCRETIONARY HYPHEN

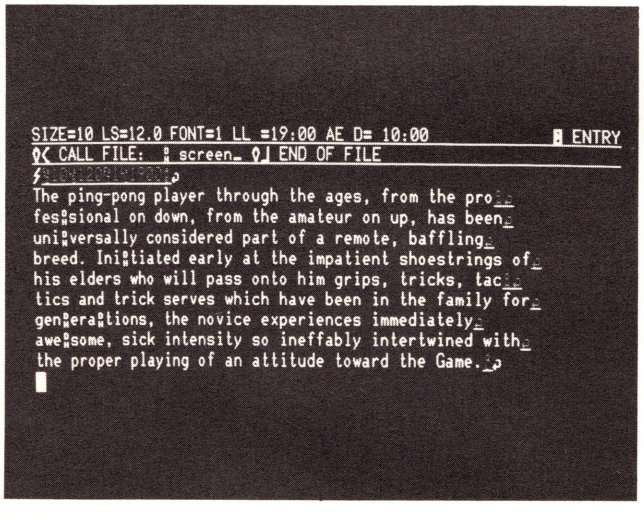
Keystroke:

Screen Symbol: D H

There are words in the English language, particularly proper nouns, which are exceptions to the rules of hyphenation. In order to assure proper hyphenation of these words, the EditWriter provides discretionary hyphenation. Discretionary hyphens are not affected by the AUTO HYPH function. AUTO HYPH can be On or Off when using the discretionary hyphen. However, once the discretionary hyphen is inserted in a word, the automatic hyphenation is deactivated for that word.

The discretionary hyphen key, DH, located on the bottom right of the main keyboard, is inserted into a word at any acceptable hyphenation point. There is no limit to the number of discretionary hyphens which can be used in a word. The following rules apply to the discretionary hyphen:

1. If the word containing a discretionary hyphen does not fit into the line measure, the EditWriter will place the portion of the word after the DH on the next line, and end the first line with a hyphen and a return. Both the discretionary hyphen and the return symbols will appear in light intensity on the screen.
2. If more than one discretionary hyphen is inserted in a word, the last discretionary hyphen which will fit into the line measure will be used to end the line.
3. If the word containing a discretionary hyphen does not fall at the end of a line, the DH symbol will be ignored.
4. If the DH is inserted immediately before the word, normal hyphenation logic will be ignored, and the word will not be hyphenated.



The ping-pong player through the ages, from the professional on down, from the amateur on up, has been universally considered part of a remote, baffling breed. Initiated early at the impatient shoestrings of his elders who will pass onto him grips, tricks, tactics and trick serves which have been in the family for generations, the novice experiences immediately awesome, sick intensity so ineffably intertwined with the proper playing of an attitude toward the Game.

NOTE

The EditWriter Exception Dictionary Option allows users to create and maintain a list of words with specified hyphenation points. Refer to the Options section of this manual for further information.

HORIZONTAL SPACING

The EditWriter offers a variety of features that permit the operator to control the horizontal spacing within the copy. Spaceband Minimum and Maximum, Character Compensation, Letterspacing, Fixed Spaces (em, en and thin), Forward, Back, Forward One Point, and Back One Point are all functions which will allow the operator to add to or subtract from the amount of white space between letters or words within a line of copy.

Spaceband Minimum and Maximum

Keystrokes: PR LC | SPACEBAR | ####

Screen Symbol: SB = ####

When the EditWriter is initialized, wordspace minimum and maximum values are preset at 12 units minimum and 42 units maximum. These values may be decreased to 0 or increased to a maximum of 99 units by the operator.

To enter different values, the keystrokes sequence PREC, SPACEBAR, #### is used. Four digits must be entered at all times. The first two digits express the minimum value, while the second two digits express the expansion value.

Three basic criteria, size, style and line length, determine when and how to alter the wordspace minimum and maximum. For example, a quality conscious operator might decrease both the minimum and maximum wordspacing values when setting sans serif type, in a small point size (sizes 06-10), on a long line measure.

PR LC | SPACE BAR | **0924**

The result: an increased number of words per line, a more compact appearance, and less opportunity for the formation of "rivers", large gaps between words.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

10/12 Helios
X20 FL.

```
A minimum of 12 units is considered standard.
A minimum of 14 units between words.
A minimum of 18 units between words.
```

MARKED COPY

ϟ [SIZE] **10** [LINE SPACE] **120** [FONT] **1** [LINE LGTH] **2000** [SPACE BAR] [RET]

A minimum of 12 units is considered standard. [QL] [RET]

[PR LC] [SPACE BAR] **1442** A minimum of 14 units between words. [QL] [RET]

[PR LC] [SPACE BAR] **1842** A minimum of 18 units between words. [QL] [RET]

KEYBOARDING INSTRUCTIONS

A minimum of 12 units is considered standard.
A minimum of 14 units between words.
A minimum of 18 units between words.

TYPESET COPY

Fixed Spaces

Because spacebands expand to fill the line measure, creating variable wordspaces, it is necessary to use fixed spaces to maintain consistency for paragraph indentions and copy alignment. The three types of fixed spaces are em spaces, en spaces, and thin spaces.

Em Space

Keystroke: EM SPACE

Screen Symbol: □

The EM SPACE key is located on the left side of the main keyboard. An em space is usually used for paragraph indents. An em does not have a fixed value, like a pica, but varies according to the point size and design of the typeface. An em space is approximately equal to the square of the point size.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

10/12 Helios Bold X20 FL. M M

12/14 M M

14/18 M M

18/24 M M

24/ M M

MARKED COPY

ϟ SIZE 10 LINE SPACE 120 FONT 4 LINE LGTH 2000 SPACE BAR RET	M M M M M M M M M M
M EM M QL RET	
SIZE 12 LINE SPACE 140 M EM M QL RET	
SIZE 14 LINE SPACE 180 M EM M QL RET	
SIZE 18 LINE SPACE 240 M EM M QL RET	
SIZE 24 M EM M QL RET	
KEYBOARDING INSTRUCTIONS	**TYPESET COPY**

En Space

Keystroke: EN SPACE **Screen Symbol:** ▯

The EN SPACE key is located on the left side of the main keyboard. The en space is approximately one-half the width of the em. Like the em, an en space is dependent upon the point size and design of the typeface. The en space is also called a figure space, because in most type styles it occupies the amount of space taken up by a figure. It is also the amount of space taken up by the dollar sign. For this reason, the en space is commonly used for aligning figures when setting tabular composition.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

12|14 Helios
x 15
Just.

```
12345      12345      12345
 2345       2345       2345
  345        345        345
   45         45         45
```

MARKED COPY

SIZE 12 LINE SPACE 140 FONT 1 LINE LGTH 1500 SPACE BAR RET

12345 INS SP 12345 INS SP 12345 RET

EN 2345 INS SP EN 2345 INS SP EN 2345 RET

EN EN 345 INS SP EN EN 345 INS SP EN EN 345 RET

EN EN EN 45 INS SP EN EN EN 45 INS SP EN EN EN 45 RET

KEYBOARDING INSTRUCTIONS

```
12345      12345      12345
 2345       2345       2345
  345        345        345
   45         45         45
```

TYPESET COPY

Thin Space

Keystroke: THIN SPACE **Screen Symbol:** ▯

The THIN SPACE key is located on the left side of the main keyboard. The thin space is approximately one-third the width of the em. Like the other fixed spaces, the thin space is dependent upon the point size and design of the typeface. The thin space is the amount of space taken up by most punctuation marks. It is commonly used for indentions and alignment of type when setting numeric tabular composition.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios x 21
Just.

```
$5,000.00      $5,000.00      $5,000.00
   500.00         500.00         500.00
    50.00          50.00          50.00
     5.00           5.00           5.00
```

MARKED COPY

ϟ [SIZE] **12** [LINE SPACE] **140** [FONT] **1** [LINE LGTH] **2100** [SPACE BAR] [RET]

$5,000.00 [INS SP] $5,000.00 [INS SP] $5,000.00 [RET]

[EN] [EN] [THIN] 500.00 [INS SP] [EN] [EN] [THIN] 500.00 [INS SP]
[EN] [EN] [THIN] 500.00 [RET]

[EN] [EN] [THIN] [EN] 50.00 [INS SP] [EN] [EN] [THIN] [EN] 50.00 [INS SP]
[EN] [EN] [THIN] [EN] 50.00 [RET]

[EN] [EN] [THIN] [EN] [EN] 5.00 [INS SP] [EN] [EN] [THIN] [EN] [EN] 5.00
[INS SP] [EN] [EN] [THIN] [EN] [EN] 5.00 [RET]

KEYBOARDING INSTRUCTIONS

```
$5,000.00      $5,000.00      $5,000.00
   500.00         500.00         500.00
    50.00          50.00          50.00
     5.00           5.00           5.00
```

TYPESET COPY

Forward

Keystroke: FWD **Screen Symbol:** + SP

The FWD key, located in the upper-right keypad, adds white space in increments of 3/54 (1/18) of an em at the point of insertion. FORWARD is a variable function that affects the horizontal positioning of copy within a line. The amount of space that it adds is dependent on the point size of the type. For example, in smaller point sizes the actual value of the FORWARD function is quite minimal. However, in size 36 the use of the FORWARD function adds space equal to two points.

The FWD key is used extensively in design work to space out letters within a word. Another common application would be for correcting overcompensation for specific letter pairs.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

18/24 Helios Bold
X18 FL.

FORWARD

F O R W A R D

MARKED COPY

ϟ [SIZE] 18 [LINE SPACE] 240 [FONT] 4 [LINE LGTH] 1800 [SPACE BAR] [RET]

FORWARD [QL] [RET]

F [FWD] O [FWD] R [FWD] W [FWD] A [FWD] R [FWD] D [QL] [RET]

KEYBOARDING INSTRUCTIONS

FORWARD
FORWARD

TYPESET COPY

Back

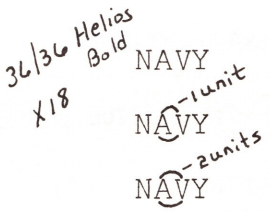
Keystroke:

Screen Symbol: $\overline{\text{SP}}$

The BACK key, located on the upper-right keypad, reduces white space in increments of 3/54 (1/18) of an em. BACK is also a variable function affecting the horizontal positioning of copy within a line. The amount of white space reduced by using the BACK key is dependent, too, on point size. In small sizes, the amount of space reduction is minimal. However, in sizes greater than 18 point, the BACK key reduces the amount of white space more than the Back One Point function (refer to p. 65).

The BACK key is used for improving character fit, thus helping to produce quality composition. It eliminates gaps between characters that would otherwise appear too widely spaced. In small point sizes the BACK key is often used to pull quote pairs together, and to position pi characters such as registration marks, asterisks and superior case numbers. It is also used for positioning punctuation marks. In larger point sizes it might be used for kerning, (for reducing the amount of white space between specific character combinations). See the exercise below.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.



MARKED COPY

ϟ [SIZE] 36 [LINE SPACE] 360 [FONT] 4 [LINE LGTH] 1800 [SPACE BAR] [RET]

NAVY [QL] [RET]

NA [BACK] VY [QL] [RET]

NA [BACK] [BACK] VY [QL] [RET]

KEYBOARDING INSTRUCTIONS

NAVY
NAVY
NAVY

TYPESET COPY

NOTE

The AutoKern Option, explained in the Option section of this manual provides the operator with an automatic means of kerning characters.

Forward One Point

Keystrokes: PR LC, FWD

Screen Symbol: P↓ +P / R▼ SP

The keystroke sequence PREC, FWD adds one point of horizontal spacing wherever it is keyed in a line. Like the FWD key, PREC, FWD is also used in design work. Because it is a fixed amount of space it can be used effectively to supplement space and set up artificial indents, especially when changing point sizes.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios X22 FL.

1 Photocomposition has many advantages.

10/12 Photocomposition has many advantages.

8/ Photocomposition has many advantages.

MARKED COPY

SIZE **12** LINE SPACE **140** FONT **1** LINE LGTH **2200** SPACE BAR RET

1 EN Photocomposition has many advantages. QL RET

SIZE **10** LINE SPACE **120** EN EN PR LC FWD PR LC FWD
Photocomposition has many advantages. QL RET

SIZE **08** EN EN EN Photocomposition has many advantages. QL RET

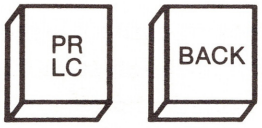
KEYBOARDING INSTRUCTIONS

---

1 Photocomposition has many advantages.
Photocomposition has many advantages.
Photocomposition has many advantages.

TYPESET COPY

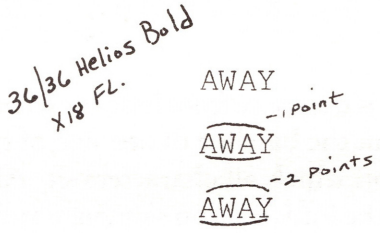
Back One Point

Keystrokes: 

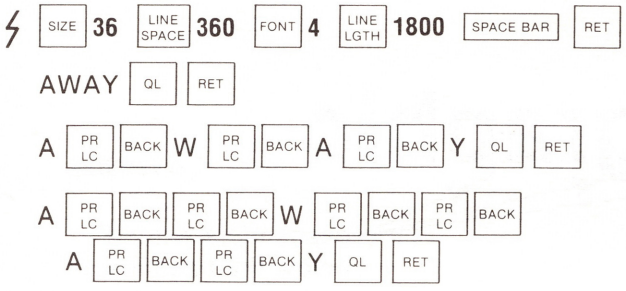
Screen Symbol: P ↓ – P / R ▼ SP

The keystroke sequence PREC, BACK is used to subtract one point of horizontal spacing wherever it is keyed in a line. Like the BACK key, it is often used for kerning pairs. However, it is always equal to one point and not dependent on point size.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.



MARKED COPY



KEYBOARDING INSTRUCTIONS

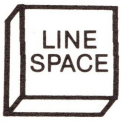
AWAY
AWAY
AWAY

TYPESET COPY

VERTICAL SPACING

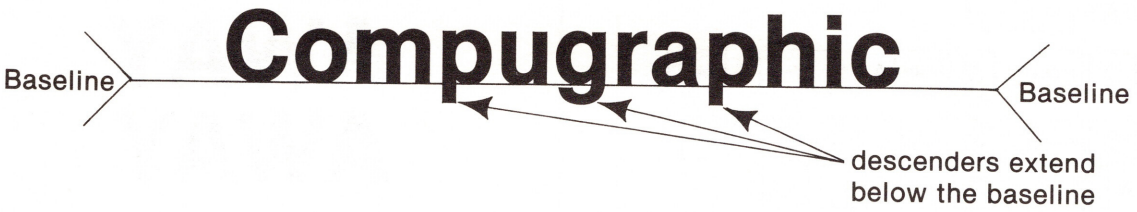
The EditWriter offers a number of features that permit the operator to control vertical spacing. A primary line spacing value is selected by the operator during the initialization sequence. This value, specified in points and half points, represents the amount of space from the baseline of one line to the baseline of the next. The primary line space value may be changed at any time during the typesetting process. In addition, four other keys allow the operator to add or subtract vertical space within a line or between lines of copy. All vertical spacing keys are located on the upper-right keypad.

Line Space



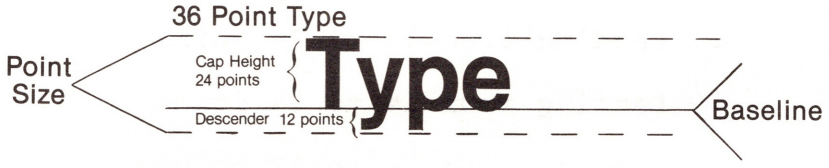
###

Line space, often referred to as leading, is the space from baseline to baseline. Measured in points and half points, line space is calculated from the baseline of one line of type to the baseline of the next. (The baseline is an imaginary line upon which all characters sit. All descenders extend below the baseline.) Line space is entered during the initialization sequence and can be changed at any time by striking LINE SPACE and three digits. The first two digits represent points, the third, half points. For example 120 = 12 points of lead, 125 = 12½ points of lead. Line space is activated after striking the RETURN key.



Calculation of line space:

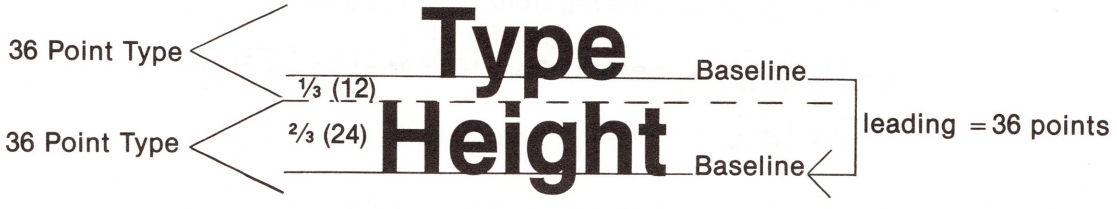
The amount of leading that must be left between two lines is dependent upon the point size of the type. (The point size is measured from the top of the capital letter to the bottom of the descender.) When determining the leading value, space must be left for the descender of the first line (approximately one-third of the point size) and the cap height of the second line (approximately two-thirds of the point size).



To calculate the leading between any two lines, add one-third of the point size of the first line to two-thirds of the point size of the second line. This value is the minimum amount of space that must be advanced after the first line to prevent overlapping. This value can be increased at the operator's discretion to create different effects. It must not be decreased.

Example 1:

The minimum leading value from 36 to 36 point type is 36 points.



Example 2:

The minimum leading value from 18 to 36 point type is 30 points.

Exercise: Determine the minimum leading values for the following lines and set the copy, line for line, as shown on the markup. Enter all typesetting parameters as indicated. (Round out any fractions to whole numbers.)

10/? Helios x20 FL.
Leading from 10 to 12 point.
12/? Leading from 12 to 14 point.
14/? Leading from 14 to 24 point.
24/? Leading from 24 to 12 point.
12/ Leading from 12 to 12 point.[8]

MARKED COPY

⚡ [SIZE] 10 [LINE SPACE] —— [FONT] 1 [LINE LGTH] 2600 [SPACE BAR] [RET]

Leading from 10 to 12 point. [QL] [RET]

[SIZE] 12 [LINE SPACE] —— Leading from 12 to 14 point. [QL] [RET]

[SIZE] 14 [LINE SPACE] —— Leading from 14 to 24 point. [QL] [RET]

[SIZE] 24 [LINE SPACE] —— Leading from 24 to 12 point. [QL] [RET]

[SIZE] 12 [LINE SPACE] —— Leading from 12 to 12 point. [QL] [RET]

KEYBOARDING INSTRUCTIONS

Leading from 10 to 12 point.
Leading from 12 to 14 point.
Leading from 14 to 24 point.
Leading from 24 to 12 point.
Leading from 12 to 12 point.

TYPESET COPY

[8]Answers on following page.

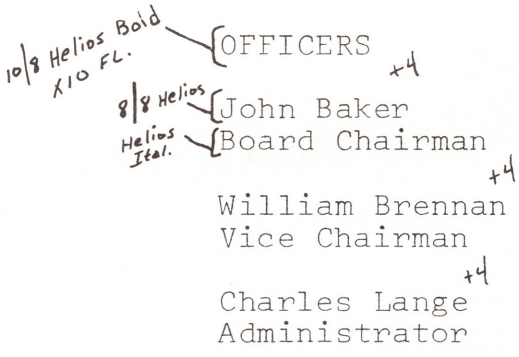
Plus Point Space

Keystroke:

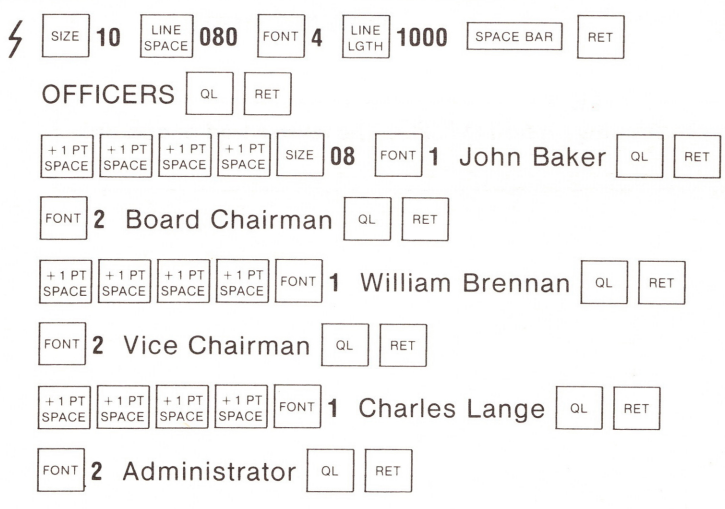
Screen Symbol: + P
LD

Space can be added to the primary line space value in one-point increments, using the + 1 PT SPACE key. Using PLUS POINT SPACE does not affect the primary line space value. Although it is most often used between paragraphs or blocks of copy, it may be inserted at any position in a typeset line. A point of vertical space is added immediately upon striking the + 1 PT SPACE key.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.



MARKED COPY



KEYBOARDING INSTRUCTIONS

OFFICERS

John Baker
Board Chariman

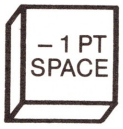
William Brennan
Vice Chairman

Charles Lange
Administrator

TYPESET COPY

*Answers:
10 to 12 point — lead 12
12 to 14 point — lead 14
14 to 24 point — lead 21
24 to 12 point — lead 16
12 to 12 point — lead 12

Minus Point Space

Keystroke: 

Screen Symbol: – P
LD

Space can be subtracted from the primary line space value in one-point increments using the -1 PT SPACE key, located in the upper-right keypad. This procedure is known as reverse leading. Up to 72 points of reverse leading can be entered anywhere within or between typeset lines. The MINUS POINT SPACE function does not affect the primary line space value. It is most often used when entering pi characters and symbols, as shown below.

Exercise: Set the following copy, line for line, as shown in the markup.
Enter all typesetting parameters as indicated.

12|12 Helios Ital.
X14 FL.

c/

AUTOTRONICS-6 TM

MARKED COPY

ϟ [SIZE] 12 [LINE SPACE] 120 [FONT] 2 [LINE LGTH] 1400 [SPACE BAR] [RET]

Autotronics [–1 PT SPACE] [–1 PT SPACE] [–1 PT SPACE] [–1 PT SPACE] [–1 PT SPACE] [–1 PT SPACE]

[SIZE] 06 TM [QL] [RET]

KEYBOARDING INSTRUCTIONS

AUTOTRONICS™

TYPESET COPY

NOTE

For information on the Multiple Column Positioning Option (MCPO), the reverse lead option program, refer to the Option section.

Plus Line Space

Keystroke: PLUS LINE SP

Screen Symbol: +L LD

The PLUS LINE SP key adds vertical space in an amount equal to the primary line space value in effect at the time. Immediately after the key is depressed vertical space is added and the type advances from one baseline to the next. PLUS LINE SPACE may be used anywhere on a line or between typeset lines. It is most often used for logos and design work.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios X24 FL.

```
Plus Line Space +LS
                can +LS
                    give +LS
                         you +LS
                             a +LS
                              "staircase" +LS
                                          effect.
```

MARKED COPY

KEYBOARDING INSTRUCTIONS	TYPESET COPY
↯ [SIZE] 12 [LINE SPACE] 140 [FONT] 1 [LINE LGTH] 2400 [SPACE BAR] [RET]	Plus Line Space
Plus Line Space [PLUS LINE SP] can [PLUS LINE SP] give [PLUS LINE SP] you [PLUS LINE SP] a	can
[PLUS LINE SP] "staircase" [PLUS LINE SP] effect. [QL] [RET]	give
	you
	a
	"staircase"
	effect.

NOTE

To visualize the difference between PLUS LINE SPACE and RETURN typeset the example above once again. This time enter a RETURN everywhere there is a PLUS LINE SP command.

Minus Line Space

Keystroke: MINUS LINE SP

Screen Symbol: – L
LD

The MINUS LINE SP key subtracts vertical space, up to a maximum of 72 points, in an amount equal to the primary space value in effect at the time. MINUS LINE SPACE may be used anywhere on a line or between lines. Vertical space is subtracted immediately after the key is depressed.

Exercise: Set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.

10/12 Helios
X20 FL.

-LS line spacing.
-LS "reverses"
Minus Line Space

MARKED COPY

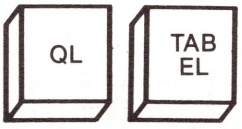
KEYBOARDING INSTRUCTIONS	TYPESET COPY
ϟ [SIZE] 10 [LINE SPACE] 120 [FONT] 1 [LINE LGTH] 2000 [SPACE BAR] [RET] Minus Line Space [MINUS LINE SP] "reverses" [MINUS LINE SP] line spacing. [QL] [RET]	line spacing. "reverses" Minus Line Space

End Line (Zero Line Space)

Keystroke:

Screen Symbol: E L

The TAB/EL (End Line) key is located at the top left of the main keypad. The key has two separate functions, depending upon the operating mode in effect at the time it is called. In the tab mode (discussed in a later section), it advances the carriage to the next tab column. In the standard operating mode it is a line ending command, often used at the end of the initialization sequence, or to "lock in" a series of commands. When depressed EL returns the carriage to the left margin without activating line space for the next typeset line. Like RETURN, EL should be preceded by the desired quadding instruction. If no quadding instruction is used, the copy will be justified.

EL ends the line, but inhibits line space. 

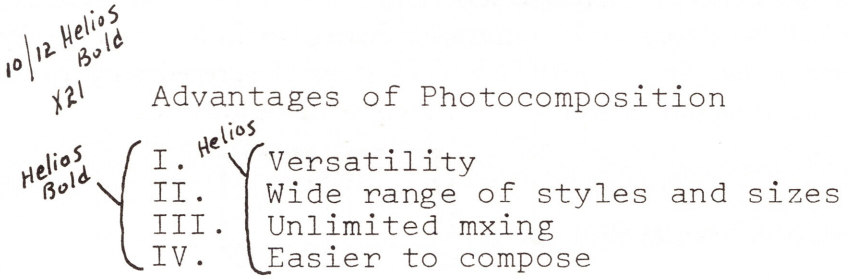
Carriage moves back to starting point

NOTE

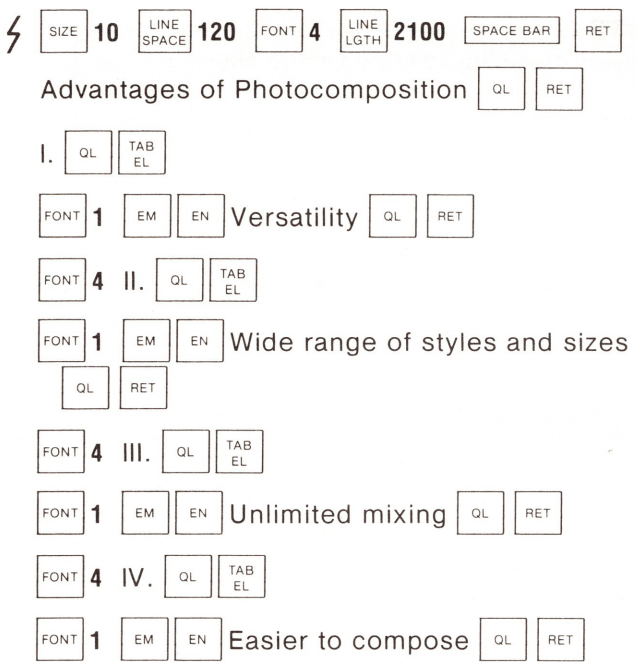
The keystroke combination PREC, RETURN is also a line ending command which returns the carriage to the left margin without activating line space.

In the exercise below, the EL key is used to align copy. Notice that the Roman numerals "I", "II", "III", and "IV" have different widths. In order to properly align the phrases which follow these numerals, the End Line function is used. In each line the Roman numeral is set Quad Left. TAB/EL ends the line and returns the carriage to the left margin. Fixed spaces, an en and em, are used to "step over" the Roman numeral which has previously been set. All copy will be identically indented one en and one em from the left margin. Notice too, that the markup shows two type styles on line.

Exercise: Set the following copy as shown on the markup.
Enter all typesetting parameters as indicated.



MARKED COPY



KEYBOARDING INSTRUCTIONS

Advantages of Photocomposition
I. Versatility.
II. Wide range of styles and sizes.
III. Unlimited mixing
IV. Easier to compose

TYPESET COPY

INSERT CHARACTER

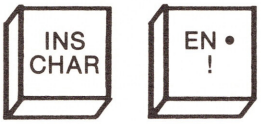
Keystroke: INS CHAR **Screen Symbol:** I C

The INS CHAR key is located at the bottom-left corner of the main keyboard. Insert Character means "repeat"—repeat the next typeset character in order to fill the given line measure. Any character can be repeated by preceding it with the INS CHAR key. Like Insert Space, Insert Character can be inserted more than once in a line.

- Insert Character is a justifying function. The character repeats as many times as is possible within the line length remaining. No quadding keys can be used in the same line with the INS CHAR key.
- Insert Character saves the operator many keystrokes. It is most often used for automatic insertion of leaders and baseline rules, or for creating decorative border designs.
- If Insert Character is used by itself on a line, the character is repeated as many times as is possible in the given line measure. Any excess space is distributed equally on either side of the inserted character.

★★★

Automatic Insert Leaders



En Leaders are often used to guide the eye across a line of text, or as areas to insert information in questionnaires and forms. The INS CHAR key, followed by En Leader (located on the right of the main keyboard) automatically inserts leaders across a line. Leaders are typeset in the style and point size selected, and positioned one en space apart.

Like Insert Space, Insert Leader may be inserted any number of times in a line. Leaders will align vertically if INS SPACE is keyed prior to INS CHAR, EN LEADER, or if there are word spaces on the line.

Exercise: Set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.

10/24 Helios
X20
Just.

```
Name of Customer.........................
Address..................................
City.....................................
State....................................
Zip......................................
                          Phone..................
```

12 Ems

MARKED COPY

KEYBOARDING INSTRUCTIONS	TYPESET COPY
ϟ SIZE **10** LINE SPACE **240** FONT **1** LINE LGTH **2000** SPACE BAR RET	Name of Customer . . . . .
Name of Customer INS SP INS CHAR EN • RET	Address . . . . .
Address INS SP INS CHAR EN • RET	City . . . . .
City INS SP INS CHAR EN • RET	State . . . . .
State INS SP INS CHAR EN • RET	Zip . . . . .
Zip INS SP INS CHAR EN • RET	Phone . . . . .
EM **(12 times)** Phone INS SP INS CHAR EN • RET	

NOTE

The En Dash key located on the main keyboard is used in a similar manner.

Automatic Baseline Rules

Baseline rules can be automatically inserted by using the INS CHAR key, followed by PREC/UC, ZERO. PREC/UC, ZERO creates a rule which is equal to the width of an em space and is proportionate to the point size. The Insert Character function repeats this rule as many times as is possible within the line length remaining. When this function is used there are no spaces between individual rule segments; the baseline rule appears as one continuous line. Baseline rules will align at the right margin if INS SPACE is used prior to INS CHAR, PREC/UC, ZERO.

Baseline Rules can also be inserted manually by keying PR/UC, ZERO (without INS CHAR) as many times as necessary across the line measure. Remember: a rule created with PR/UC, ZERO is equal to the width of an em space. Therefore, the two keystroke sequence must be keyed several times, depending on the desired length of the rule. For example, a baseline rule would be manually inserted when City, State and Zip all appear on the same baseline; and the length of each rule following the copy varies.

City _____ State _____ Zip _____

With practice and experience, the operator will be able to determine how many times to input the keystroke sequence. Perhaps, after typing "City" the sequence PR/UC, ZERO should be input 10 or 12 times, after "State" 4 or 5 times, and after "Zip" 6 or 7 times. By watching the line length remaining indication (LLR=) on the screen Parameter Line, the operator can calculate the actual length of each rule on that baseline.

NOTE

When baseline rules are inserted manually, it is suggested that the operator use a Fixed Space between copy and rules so that rules and copy do not touch. Also, if the line is not required to file the entire measure, a quadding instruction must be included, just as if it were a regular line of copy.

Exercise: Using Automatic Baseline Rules set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.

8/16 Helios
X18
Just.

Name of Customer _____
Address _____
City _____
State _____
Zip _____
Phone _____

15 Ems

MARKED COPY

KEYBOARDING INSTRUCTIONS	TYPESET COPY
↯ SIZE 08 LINE SPACE 160 FONT 1 LINE LGTH 1800 SPACE BAR RET	Name of Customer _____
Name of Customer INS SP INS CHAR PR UC 0 RET	Address _____
Address INS SP INS CHAR PR UC 0 RET	City _____
City INS SP INS CHAR PR UC 0 RET	State _____
State INS SP INS CHAR PR UC 0 RET	Zip _____
Zip INS SP INS CHAR PR UC 0 RET	Phone _____
EM (15 times) Phone INS SP INS CHAR PR UC 0 RET	

NOTE

The PREC/UC key must be used when inserting a baseline rule. Refer to the EditWriter 7770 tab and the Option section for information on setting rules with the EditWriter Ruling Option.

CHARACTER ALIGNMENT

Two features, Flash Only and Space Only, aid in the alignment of characters in column work, and allow the operator to manipulate standard character width values. They are both located in the upper-right keypad.

Flash Only

Keystroke: FLASH ONLY **Screen Symbol:** F O

In normal operation, a character is photographed and the carriage advances the width of that character to prepare for setting the next image. Striking the FLASH ONLY key *before* a character, allows the character to be photographed, but inhibits the movement of the carriage and the counting of the character width. When this function is used F O appears on the screen line. The FLASH ONLY function affects only one character at a time and then returns the system to the standard operating mode. The FLASH ONLY key can be used to position one character outside of the right margin, as with hanging punctuation.

Exercise: Set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.

12/14 Helios Lt.
X15
Just.

```
12345a      12345      12345
 2345        2345b      2345
  345         345        345c
   45          45         45
```

MARKED COPY

KEYBOARDING INSTRUCTIONS	TYPESET COPY
ϟ SIZE 12 LINE SPACE 140 FONT 3 LINE LGTH 1500 SPACE BAR RET	12345a 12345 12345
12345 FLASH ONLY a INS SP 12345 INS SP 12345 RET	2345 2345b 2345
EN 2345 INS SP EN 2345 FLASH ONLY b INS SP EN 2345 RET	345 345 345c
EN EN 345 INS SP EN EN 345 INS SP	45 45 45
EN EN 345 FLASH ONLY c RET	
EN EN EN 45 INS SP EN EN EN 45 INS SP	
EN EN EN 45 RET	

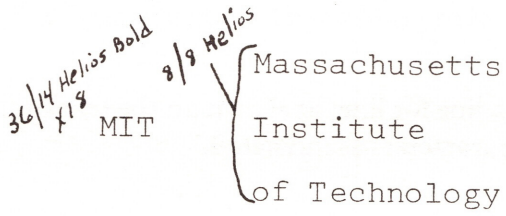
Space Only

Keystroke: SPACE ONLY

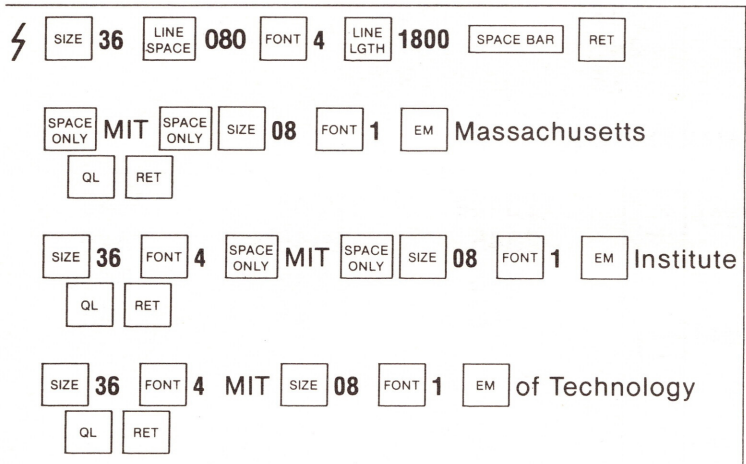
Screen Symbol: S O S X

The SPACE ONLY key is a non-photo key. When SPACE ONLY is in effect S O appears on the screen line and the character image(s) immediately following will not be photographed. However, the space they would have occupied on the line measure will be left as if they had been photographed. To begin photographing again the SPACE ONLY key must be used a second time on the line. At that point S X will appear on the screen line, signifying that the function has been turned off. Since all line ending instructions will automatically reactivate the photographic flash, SPACE ONLY must be re-keyed in every line on which images are *not* to be photographed.

Exercise: Set the following copy, line for line, as shown on the markup.
Enter all typesetting parameters as indicated.



MARKED COPY



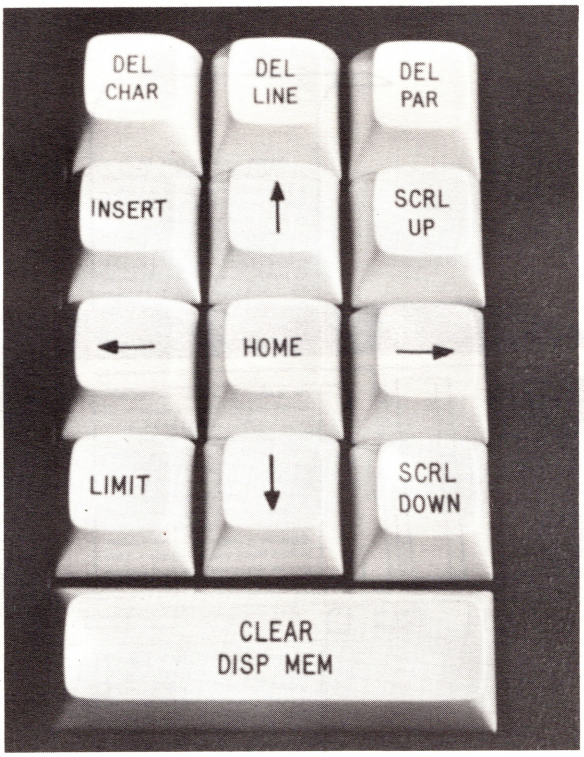
KEYBOARDING INSTRUCTIONS

TYPESET COPY

EDITING

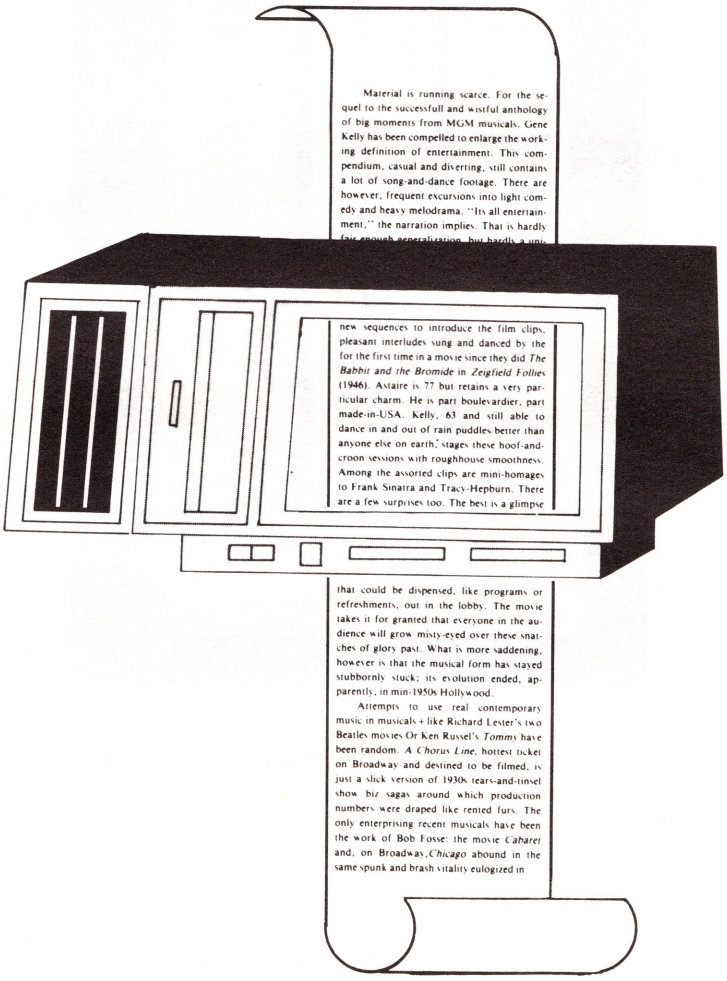
EDITING

The EditWriter provides a variety of keys that simplify the editing and correcting of copy. Four directional cursor controls and the ability to "scroll" the screen allow the operator to access points where changes are to be made. Once these points are accessed, characters, words, lines and paragraphs may be removed or replaced and new material may be added. The keys that control editing functions are grouped together on the lower-left keypad. The use of any editing key changes the system from the ENTRY (counting) mode to the EDIT (non-counting) mode. After editing is completed, REJUST, EXECUTE is normally keyed so that line endings are recalculated to reflect any changes. This also restores the EditWriter to the ENTRY mode.



SCROLLING

The EditWriter screen displays 13 lines of material at one time; however, it is able to store additional lines in its memory. The EditWriter SCROLLING feature allows the operator to reposition the screen "window" throughout the memory to view any 13-line segment desired. When the operator types more than can be displayed in 13 lines, the screen copy scrolls automatically. Also, when the operator has finished typing and wishes to review the work, or when the operator calls a file of more than thirteen lines to the screen for editing, he or she can scroll manually by using one of the two scroll keys located on the lower-left keypad. The use of either of these keys will place the EditWriter in the EDIT mode.



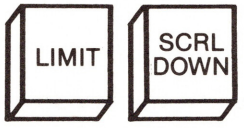
Scroll Down

Striking the SCRL DOWN key causes the lines on the screen to move down one line at a time. Holding the key down causes the lines to move down continuously until the first line in the screen memory is displayed.

Scroll Up

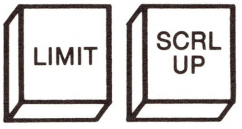
Striking the SCRL UP key causes the lines on the screen to move up one line at a time. Holding the SCRL UP key down causes the lines to move up continuously until the last line in the screen memory is displayed.

Limit, Scroll Down



The keystroke sequence LIMIT, SCRL DOWN causes the first 13-line segment in the screen memory to be instantly displayed. The cursor automatically appears on the first line, in the HOME position.

Limit, Scroll Up



The keystroke sequence LIMIT, SCRL UP causes the last 13-line segment in the screen memory to be instantly displayed. The cursor automatically appears below the last screen line.

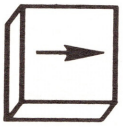
CURSOR CONTROLS

Four keys on the lower-left keypad are marked with arrows. They allow the operator to move the white square (called the cursor) up, down, left and right on the screen. Striking one of these keys causes the cursor to move one step at a time. Holding the key down causes the cursor to move at a continuous rate until the key is released. A fifth key on the same keypad moves the cursor "home" or to the upper-left corner of the screen. The use of any of these cursor control keys automatically places the EditWriter in the EDIT (non-counting) mode.

Home

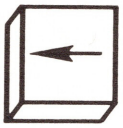
Striking the HOME key instantly positions the cursor in the upper-left-hand corner of the screen. Note that the first screen line is not necessarily the beginning of the copy held in the screen memory.

Right Arrow



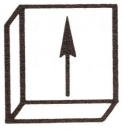
Striking the RIGHT ARROW key moves the cursor one position to the right. Holding the key down causes the cursor to move at a continuous rate until the key is released. When the cursor reaches the end of a screen line, it drops down to the first character on the next line and continues to move to the right. When the last character on the screen is reached, the screen copy scrolls up automatically line-by-line.

Left Arrow



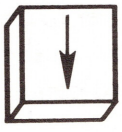
Striking the LEFT ARROW key moves the cursor one position to the left. Holding the key down causes the cursor to move at a continuous rate until the key is released. When the cursor reaches the beginning of a screen line, it moves up to the last character on the preceding line, and continues to move to the left. When the first character on the screen is reached, the screen copy scrolls down automatically, line-by-line.

Up Arrow



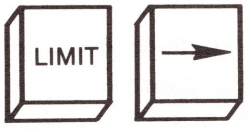
Striking the UP ARROW key moves the cursor up one line. Holding the key down causes the cursor to move at a continuous rate until the key is released. When the first line on the screen is reached, the screen copy scrolls down automatically.

Down Arrow



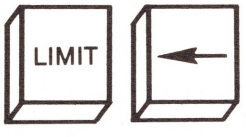
Striking the DOWN ARROW key moves the cursor down one line. Holding the key down causes the cursor to move at a continuous rate until the key is released. When the last line on the screen is reached, the screen copy scrolls up automatically.

Limit, Right Arrow



The keystroke sequence LIMIT, RIGHT ARROW causes the cursor to move instantly to the last character on the line.

Limit, Left Arrow



The keystroke sequence LIMIT, LEFT ARROW causes the cursor to move instantly to the first character on the line.

DELETIONS

Several Delete keys are available for use by the operator when editing or correcting material on the screen. They enable the operator to remove single or multiple characters, lines, paragraphs, or the entire content of the screen memory.

Delete Character

Individual characters may be removed from the screen by placing the cursor on the character to be deleted and striking DEL CHAR. The character image disappears and all other characters in the line move one position to the left. When held down, the DEL CHAR key will continue to cancel characters until released.

Delete Line

Individual lines or portions of lines may be removed from the screen by placing the cursor on the first character to be deleted and striking DEL LINE. Striking the key once will cause all words to the right of the cursor on the screen line to be underlined. Striking DEL LINE a second time causes the underlined words to be removed.

Delete Paragraph

Entire paragraphs or portions of paragraphs may be removed from the screen by positioning the cursor on the first character to be removed and striking DEL PAR. All characters to the right of the cursor and on all following lines up to and including the paragraph ending (QL, RET) will be underlined. Striking the key a second time causes the underlined paragraph to be removed.

NOTE

If a line or paragraph has been underscored by mistake the underscore may be removed by striking any of the editing (cursor) keys.

Clear Memory

The keystroke sequence CLEAR DISP MEM, EXECUTE is used to clear all information from the display screen memory. This is a deliberate two-step procedure to prevent accidental loss of material. When a file record is cleared, typesetting parameters are restored to the condition which existed at the end of the previous record. If the CLEAR MEMORY key is struck accidentally, it can be deactivated by striking any of the cursor keys.

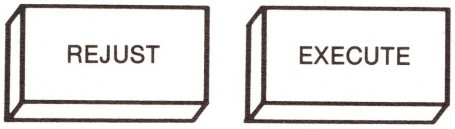
Cancel Character

CNCL CHAR is used to correct an error made while entering copy on the screen. Unlike DEL CHAR, this key cancels the character which precedes it rather than the character upon which it rests. If held down, CNCL CHAR will continue to remove characters until released. If in ENTRY (counting) mode, the width of each cancelled character will be added to the LLR (line length remaining) message in the parameter line.

In ENTRY mode, CANCEL CHARACTER does not cancel the following line ending commands:

- RETURN
- TAB/EL
- MULTIJUST
- CALL TAB
- TAB RET

REJUSTIFY



In the automatic line ending mode, line endings are determined by the EditWriter as the operator types copy. However, when the operator makes changes in the copy on the screen, the previous line endings may no longer be valid. Before copy is replaced on the disk or sent to the photo unit, it must be rejustified.

The REJUST and EXECUTE keys are located in the lower-right keypad. The keystroke sequence REJUST, EXECUTE recounts the character width values and recalculates all line endings. Rejustification always takes place from the beginning of the screen memory up to, but not including, the cursor. Before striking REJUST, EXECUTE, place the cursor after the last line of copy to ensure that the entire contents of the screen memory are rejustified.

The operator may choose to rejustify only a portion of the copy. In this case, the cursor is placed at the end of the desired copy block prior to striking REJUST, EXECUTE. This rejustifies all or part of the copy in the screen memory and leaves the EditWriter in the ENTRY (counting) mode.

It is possible to exceed the screen memory limit of 200 lines or 6,000 characters when large additions have been made to the screen contents, or when a drastic change in line measure is made prior to rejustification. As a safety feature, to prevent loss of lines that will no longer fit in memory, the EditWriter discontinues the REJUST process after all that will fit in the screen memory is recounted. When this occurs, the message MEMORY FULL is displayed, along with an indication of how many lines or characters remain in the memory. (Refer to Introduction to File Management, The Disk and Appendix D, Error Messages.)

INSERT

The operator may replace any character under the cursor by simply striking over it. If an operator wishes to add additional characters in the middle of a line, the INSERT key is used (located in the lower-left keypad).

To INSERT copy in the EDIT (non-counting) mode:

1. Move the cursor to the position on the line where new characters are to be typed.
2. Strike the INSERT key. (All copy from the cursor position will drop down one line enabling new copy to be entered from the keyboard. If the insert consists of more than one screen line, the screen continues to open up one line at a time.)
3. Type the copy to be inserted. (Be sure to complete all insertions before moving the cursor to correct any typing errors made. Moving the cursor will deactivate the INSERT function.)
4. Strike REJUST, EXECUTE to recalculate the line endings.

Moving the cursor to insert copy automatically puts the EditWriter into the EDIT (non-counting) mode. Should the operator wish to make an insertion and be able to verify the amount of space the insert will occupy on the line, the insert must be made in the ENTRY (counting) mode.

To INSERT copy in the ENTRY mode:

1. Move the cursor to the position on the line where new characters are to be typed.
2. Strike REJUST, EXECUTE. (All copy up to the cursor will be rejustified, and the EditWriter will be in ENTRY Mode.)
3. Strike the INSERT key.
4. Type the copy to be inserted.
5. Strike LIMIT, SCRL UP to bring the cursor to the bottom of the copy.
6. Strike REJUST, EXECUTE to recalculate the line endings.

ADVANCED FILE MANAGEMENT

FILE RECORDS

New files must be entered in segments called "records" if they are to contain more information than the screen memory can hold (up to 200 lines or 6,000 characters). Also, extensive editing and additions to an existing file will often necessitate breaking that file into individual records.

First, copy entered through the keyboard is stored under a file name. This establishes the file and frees the screen for additional input which can be stored as subsequent file records. Each record is then entered under the same file name that was originally specified. (A record is only a part of a file, having the same name as the whole file.) Any number of records can be added to a file, up to the maximum capacity of the disk. Thus, a disk can presumably contain only one file name and still be over 50 percent used. In which case, that one file would most likely have several records.

Establishing records within a file enables an operator to access individual segments of a job without calling the entire job onto the screen. Editing is faster and easier, and small portions of the jobs can be output.

To enter copy on the disk in a series of records:

1. Place the cursor after the last line of copy to be entered on the disk.
2. Strike the ENTER FILE Key. The Status Line will display the message "ENTER FILE" and either "WITH COPY" or "WITHOUT COPY."
3. Strike the TYPESET Key to select the "WITH COPY" or "WITHOUT COPY" condition.
4. Keyboard a one- to eight-character file name.
5. Strike the EXECUTE key. All of the information up to the point where the cursor was placed disappears from the screen. It has been entered into the screen memory under the assigned file name. Any additional information that remains on the screen (copy below the point where the cursor was positioned), appears on the display.[9]
6. If the operator wishes to enter the remaining copy as additional records under the same file name he would simply reposition the cursor and strike ENTER FILE, EXECUTE, again choosing the "WITH" or "WITHOUT COPY" condition. This time, however, the file name must not be entered. Striking the ENTER FILE key will automatically readdress the Edit-Writer to the file name that was previously entered. The original file name should appear "in quotes" next to the "ENTER FILE" message.
7. With the above procedure the operator can continue to enter additional records.

[9]If there is no more copy remaining on the screen the operator may input copy and enter subsequent records following the same directions in Step 6.

To call a file record to the screen:

1. Strike the CALL FILE key.
2. Type the one- to eight-character file name.
3. Strike the EXECUTE key. The first record of the file will appear on the screen. If this first record has the information needed, the procedure is complete. However, if the second or third file needs to be accessed continue with Step 4.
4. If the "CALL FILE" message still appears in the screen's Status Line, subsequent records can be called by simply striking the EXECUTE key. However, if the operator has made some changes or carried out additional file managment routines (such as INSERT BLOCK), a message other than "CALL FILE" will appear in the Status Line. If this occurs, the keystroke sequence CALL FILE, EXECUTE will automatically address the EditWriter to the correct file name and the screen will display the next record. If the file name is keyed again, the first record will scroll onto the screen and the operator would have to continue with the EXECUTE routine (described in this step) in order to locate the record needed.

NOTE

If a file has more than four or five records it might be time-consuming for an operator to access the fourth or fifth record. Thus, the user must decide whether it is best to store information in many records under one file name or under separate names.

To replace a record on the disk (If one of the records has been changed or edited):

1. Place the cursor at the end of the copy to be replaced and strike REJUST, EXECUTE.
2. Strike the TYPESET key to select the "WITH COPY" or "WITHOUT COPY" condition.
3. Strike REPLACE FILE, EXECUTE. The record will be replaced on the disk under the original file name. No other records in the file will be affected.

To delete a record from the disk:

1. Call the desired record to the screen.
2. Strike DELETE FILE, EXECUTE without providing a file name. Although the record remains on the screen, it has been deleted from the disk. If that record is no longer needed, it can simply be cleared from the screen using CLEAR DISP MEM, EXECUTE.

   However, perhaps the operator wants to retain the copy that was just deleted as a record, and store it, instead, as a separate file with a new file name. In this instance, the operator would not CLEAR DISP MEM. With the copy on the screen, the operator would continue with the ENTER FILE procedure described in the Introduction to File Management tab.

NOTE

The message "COMPLETED" in the screen message area indicates that a file has subsequent records. The message "END OF FILE" informs the operator that the file addressed has no additional records.

SEARCH

The SEARCH key is the top-left key in the File Management (lower-right) keypad. Within a single record, the SEARCH feature allows the operator to locate any combination of 1-8 characters automatically. SRCH can be used to quickly locate a unique character sequence or to find a particular combination that was repeatedly in error.

To SEARCH within a given record:

1. Strike LIMIT, SCRL DOWN to display the first 13 lines of copy.
2. Strike SRCH.
3. Type the character combination to be searched. (The message "SEARCH KEY:" plus the character combination appears on the Status Line.)
4. Stike the EXECUTE key. The cursor will "search" through the record until the desired character combination is found. The cursor will stop on the first character of the defined character combination, at which time the operator may make insertions or corrections.
5. Strike the EXECUTE key again. The SEARCH will continue within the record. (When the end of the record has been reached, and all occurrences of the character combination have been found, the message "? KEY NOT FOUND" will appear on the Status Line.)
6. Stike REJUST, EXECUTE to recalculate line endings.
7. Strike REPL FILE, EXECUTE to replace the corrected record on the disk.
8. Strike CALL FILE, EXECUTE (if appropriate) to call up the next record or CALL FILE, "file name," EXECUTE if you are searching for the same characters in a different file.
9. Strike LIMIT, SCRL DOWN to display the first 13 lines of copy.
10. Strike SEARCH, EXECUTE to begin the search of the new record or file. This time, the operator does not need to input the character combination to be searched. When the SEARCH key is depressed the EditWriter is automatically addressed to the character combination originally input.

NOTE

To search for a character made with the PREC/UC or PREC/LC key, the two-keystroke combination must be used. (For instance, to search a baseline rule, the combination PREC/UC, ZERO must be searched.) Any character code sequence can be searched by striking SRCH, followed by the character combination to be searched.

REPLACE SEARCH

The REPLACE SEARCH feature is often used to search an entire file (multiple-record file) rather than a single record at a time. REPL SRCH differs from SRCH in that the corrected record is automatically rejustified and replaced on the disk after the corrections are made by the operator. The next record on the file is then automatically brought to the screen to continue the search. A common application of the REPLACE SEARCH function would be searching for kerning pairs throughout an entire file.

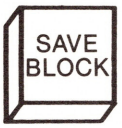
To use REPLACE SEARCH:

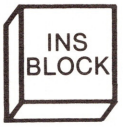
1. Strike the REPL SRCH key, located in the lower-right keypad.
2. Type the character combination to be searched (any combination of 1-8 characters).
3. Strike TYPESET to select the "WITH COPY" or "WITHOUT COPY" condition.
4. Strike the EXECUTE key. The cursor will "search" through the record until the desired character combination is found. If the character combination does not appear in the first record of the file, the EditWriter will automatically rejustify the record, replace it on the disk, and call the next record to the screen. REPLACE SEARCH will continue into the second record, and subsequent records, until the correct character combination is found. If the character combination is found, insertions or corrections may be made by the operator.
5. To continue the REPLACE SEARCH, strike the EXECUTE key again. Each time the character combination is found, and the required corrections are made, striking EXECUTE will continue the REPLACE SEARCH.
6. After the last record of the file has been searched, the record will be justified automatically and replaced on the disk. The message "? KEY NOT FOUND" will appear in the Status Line, and the screen will be cleared, indicating completion of the REPLACE SEARCH operation. If "WITH COPY" was specified the file will go to the photo unit for typesetting.

NOTE

To most effectively use REPLACE SEARCH, follow the procedures described for SEARCH. After successfully locating the first error with SRCH, strike REPLACE SEARCH to continue the search through subsequent records.

BLOCK ROUTINES





The SAVE BLOCK and INSERT BLOCK features allow the operator to save and move blocks of copy. (A block refers to a portion of a typesetting job.)

Save Block

The SAVE BLOCK feature allows characters or groups of characters displayed on the screen to be singled out and stored on the disk under their own file name. When saved, a block can be moved to a new location in the same job or to a completely different job. SAVE BLOCK is similar to ENTER FILE. Material stored with SAVE BLOCK becomes a permanent file on the disk; and the name under which the block is stored is listed in the index. SAVE BLOCK is not used for entering the main body of the typesetting project on the disk. Rather, it is a means of storing parts of the typesetting project apart from or in addition to the main body. In this sense, the block is a secondary or sub-file storing indents, formats, parameters, etc.

The SAVE BLOCK function is used for transferring blocks of copy from one position on the screen to another, from one file record to another, or from one file to another. It allows the operator to store character sequences that are used repeatedly throughout a typesetting job. Each sequence or series of keystrokes is stored on disk under its own file name. This eliminates the need for re-typing repetitive material, thereby reducing the possibility of typing errors.

To save a block of copy and store it on the disk:

1. Position the cursor on the first character desired in the block.
2. Strike SAVE BLOCK. The first character will be underlined, and the cursor will move one position to the right.
3. Using the editing keys (designated with arrows), move the cursor to the immediate right of the last character desired to be saved in the block. As the cursor is moved, screen text preceding the cursor will be underlined. The operator can verify whether the block is complete.
4. Type a one- to eight-character file name under which the block is to be stored.
5. Strike EXECUTE. The underlined screen text will disappear from the screen, and will be stored on the disk under the name selected by the operator. Although the underlined screen text disappears from the screen, it is not necessarily deleted from the file. If the operator chooses not to replace the file, the information that was saved as a block will reappear in the file when it is called to the screen again.

Additional records may be added to a file created with SAVE BLOCK. To do this, the operator keys SAVE BLOCK, and moves the cursor to underline the next character sequence to be saved. No file name is entered, and EXECUTE is keyed immediately after the block has been defined. (Notice that when SAVE BLOCK is keyed again, the function is addressed to the name it was given previously.)

Insert Block

To insert a block of copy into screen text:

1. Place the cursor on the first character to follow the block.
2. Strike the INSERT BLOCK key, followed by the file name under which the block was stored. Enter the name exactly as it appears on the Index.
3. Strike the EXECUTE key. Notice that a space opens up on the screen immediately before the cursor. The block will be inserted into the screen text at the assigned point.
4. At that time the operator should reposition the cursor (LIMIT, SCRL UP), and rejustify the file, and either replace the original or enter the new version on the disk as a new file.

INSERT BLOCK permits the operator to address two files, bringing them onto the screen at the same time. The function is used when formats are brought to the screen; See Appendix B. Any file on the disk, regardless of the method by which it was created (ENTER FILE or SAVE BLOCK), can be accessed by the INSERT BLOCK function.

INSERT FILE

The INSERT FILE feature allows the operator to divide any file record into two or more records within the same file. Generally, INSERT FILE is not used when new material is to be entered onto a disk. Rather, it is used when there is extensive editing and the operator wishes to change the amount of material contained in an existing record.

During editing the size of a file record could be enlarged to the point where the screen memory becomes full. The MEMORY FULL message would appear in the Status Line and/or the remaining line and character count would be displayed. (Refer to Introduction to File Management, Entering a File.) In this situation, the large record would have to be divided into two or more smaller records, which would then replace the original on the disk.

To insert (divide) a file record:

1. Strike CALL FILE. Type the one- to eight-character file name exactly as it appears in the Index. Hit EXECUTE. If necessary, continue to strike EXECUTE until the appropriate record is displayed on the screen.
2. Position the cursor at a logical division point, preferably following the end of a paragraph.
3. Strike INSERT FILE, EXECUTE. All screen text up to, but not including, the cursor disappears from the screen and is returned to the disk, creating a new, separate record. This new record is recorded under the same file name, and is positioned immediately in front of the original record, which is still intact at this point.
4. Move the cursor to the end of the material remaining on the screen.
5. Strike REPL FILE, EXECUTE to return the remaining material to the disk. There are now two records in place of the original larger record.

INSERT FILE may be used repeatedly with the same file record to break it into as many small records as necessary. However, the last new record created should be returned to the disk in place of the original, larger record using REPLACE FILE, EXECUTE. If REPLACE FILE is not used and the screen is emptied with INSERT FILE, the original file record will remain on the disk unaltered, immediately following the new records created.

To insert a new record between existing file records:

1. Use the Call File routine described on the preceding page in Step 1. Call the record which will immediately follow the new record onto the screen.
2. Strike CLEAR DISP MEM, EXECUTE. The copy disappears from the screen.
3. Keyboard the copy to be included in the new record.
4. Strike INSERT FILE, EXECUTE. All screen text will be entered onto the disk as a new record immediately preceding the record originally called (in Step 1).

For example, File A has two records. However, the operator needs to insert some new information in the file. This information will be inserted as a new record between records one and two. In order to do this the operator must:

1. Key CALL FILE, "A," EXECUTE.
2. Strike EXECUTE again to bring the second record to the screen.
3. Strike CLEAR DISP MEMORY, EXECUTE. The second record is cleared from the screen so that the new copy can be added.
4. After the copy is keyboarded, strike INSERT FILE, EXECUTE.

The Insert File function actually enters information onto the disk. Therefore, at this point, all of the screen copy is on disk. When file "A" is called to the screen again it consists of three records. What was originally stored as the second record is now record three.

MEASURE DEPTH

The MEASURE DEPTH key is located in the upper-left keypad. In addition to recording the accumulated depth of copy as it is keyboarded, the EditWriter can measure copy depth to a specific value in picas and points. The measure depth function can be used for determining vertical copy fit for page breaks, column lengths and similar types of composition.

Depth measurement begins on the baseline of the first line of copy to be measured and continues through the last line of copy, including the return for that line.

To use the measure depth function:

1. Position the cursor on the first character of the first line of copy to be measured.
2. Strike REJUST, EXECUTE. This step is very important because the line spacing throughout a job might change very often. The operator must be assured that the line spacing value displayed in the Parameter Line (of the screen message area) is the same as the line spacing value that is being used to determine the depth of the copy.
3. Strike MEAS DEPTH. The Status Line will display the following message:
   MEASURE DEPTH __00:00
4. Type five digits which represent the specific depth required in picas and points. For example, for a depth of 30 picas, the operator would type 03000. The Status Line will appear as follows: MEASURE DEPTH 30:00 (If there are less than 99 picas the screen will display only four positions, less than 10 picas—only 3 positions.)
5. Strike EXECUTE to begin the counting procedure. The cursor will begin to move quickly through the copy on the screen and in the screen memory.

It will actually break the copy and stop after ↩

CURSOR → ▮

the last line that will fit in the specified depth.

(The line above does not fit within the specified depth.)

If the depth is equal to the selected value, the Parameter Line will display D=0:00. If the depth is less than the selected value, the Parameter Line will indicate the remaining value in picas and/or points, i.e. 0:02. This leftover value can be distributed between paragraphs on the page.

6. The EditWriter is in INSERT mode at this time, enabling the operator to insert extra line spacing, footnotes, page numbers or similar information. To make up two extra points as shown on the preceding page, the operator might choose to input two PLUS POINT SPACES. (Refer to the Vertical Spacing features in the Typesetting Functions tab.)

7. To continue measuring the same depth, move the cursor back to point where it had stopped previously and strike MEAS DEPTH, EXECUTE. It is unnecessary to re-enter the depth value unless it changes.

NOTE

Remember, too, that when inputting copy in the INSERT mode the depth counter in the screen message area is always keeping count of the copy depth.

PAGING COPY

The MEASURE DEPTH and INSERT BLOCK functions can be used together to page copy, and to store both the original galley and the paged copy on the disk. This procedure should not be used until the entire manuscript has been stored on the disk and all editorial changes have been made. Also, sufficient space for re-entering the manuscript on the disk must be available. This means that the disk should be no more than 50% used. (If necessary, refer to the discussions of both the MEASURE DEPTH and INSERT BLOCK functions.)

To page a galley of copy and store the pages under a new file name:

1. Use the INSERT BLOCK function to call the first record of the galley to the screen.
2. Place the cursor at the point at which the vertical measurement is to begin (normally at the very beginning of the copy.) Strike REJUST, EXECUTE.
3. Strike the MEAS DEPTH key.
4. Type five digits which represent the specific depth required in picas and points. (The first three digits represent picas, and the last two, points.)
5. Strike EXECUTE to begin the counting procedure. The cursor will break the copy and will stop after the last line that will fit in the specified depth. If the depth is equal to the selected value, the Parameter Line will display D=0:00. If the depth is less than the selected value, the Parameter Line will indicate the remaining value in picas and/or points. This leftover value can be distributed between paragraphs on the page.
6. The EditWriter will be in INSERT mode at this time, enabling the operator to insert extra line spacing, footnotes, page numbers and the like.
7. To store the page, place the cursor at the end of the page that you have just established and strike ENTER FILE. Strike the TYPESET key to select "WITH COPY" or "WITHOUT COPY." Type the name of the file under which the pages will be stored. A new file name is chosen because this time the copy is paginated. Key EXECUTE to complete the instruction.

Paging continues by repeating the above procedure. Each new page is entered in the newly-created file by striking ENTER FILE, EXECUTE. The name of the new file will automatically be addressed and it should not be entered again. When all copy in the screen memory has been paged the message "END OF DATA" will appear in the Status Line. If there are subsequent records of the block, continue paging copy with the procedure on the following page. If not, refer directly to Step 6 of the same procedure to complete the paging process.

To continue paging into the next record of the block:

1. With the cursor positioned at the end of the copy remaining on the screen, strike INSERT BLOCK, EXECUTE. The second record of the original file will be inserted after the copy on the screen. The depth counter will record the depth of the second record.
2. Strike LIMIT, SCRL DOWN to position the cursor at the beginning of the copy in the screen memory.
3. Strike REJUST, EXECUTE to restore the previous line spacing value and therefore, keep the vertical depth measurement consistent.
4. Strike MEASURE DEPTH, EXECUTE and resume measuring the page.
5. Strike ENTER FILE, EXECUTE to store the page. This procedure may be used for as many records as exist in the original galley file.
6. The last page of the job has been reached when "END OF DATA" appears, and all subsequent records of copy have been brought to the screen. If there is some copy remaining on the screen, the operator might consider inserting additional leading to insure the last page is positioned correctly within the previously determined page depth.

QUEUING

The operator may provide the photo unit with a list of jobs to be typeset. This list is called a QUEUE (pronounced "Q"). An item in the queue may be either an entire file or a single record of any file. The queue may contain up to five jobs. The first job entered into the queue is the first to be typeset. The photo unit will remain active and the Status Line will reflect "ACT" until the queue is empty, and the last job has been set. The disk must not be removed until the queue is empty and the ACT message disappears from the screen.

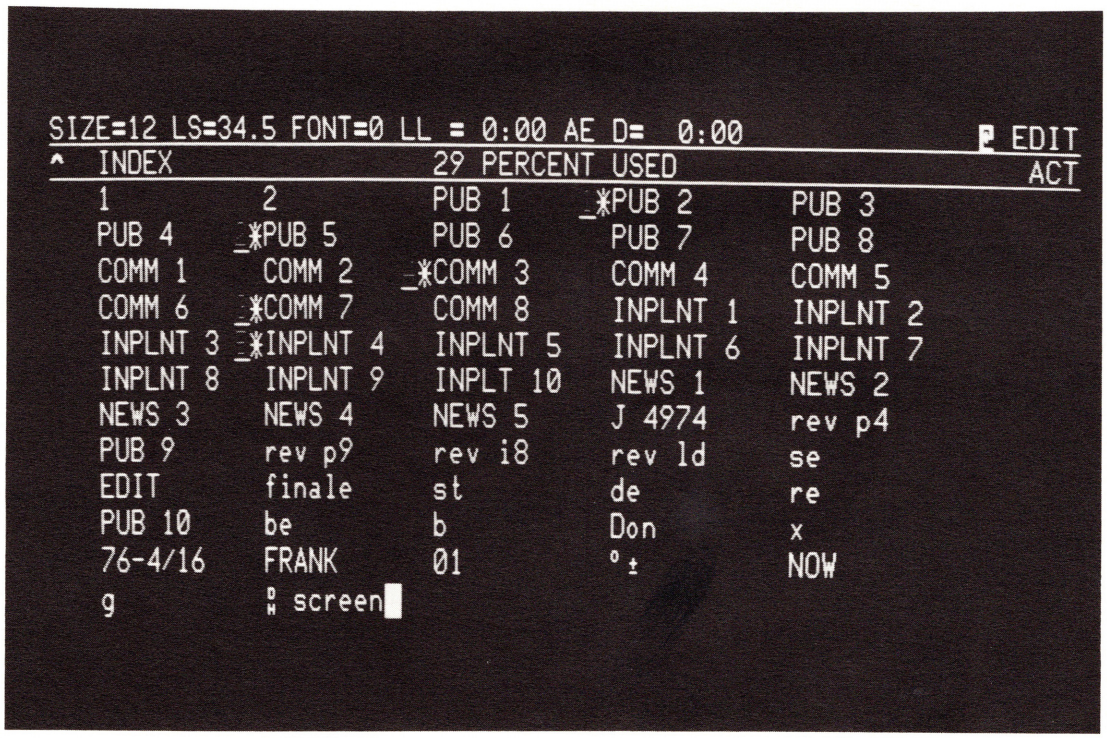
When a job is recorded on the disk "WITH COPY", it automatically enters the typesetting queue. The total number of jobs in the queue is indicated in the Status Line by the message "# JOBS IN QUEUE." This messages appears when either the SET FILE or ENTER FILE WITH COPY commands are entered. If the photo unit processes a short file or record before the memory is full, no update of the job number will occur. When EXECUTE is depressed and the new job has entered the queue, the message "JOB IN QUEUE" will be displayed.

If the queue is full (if five jobs are already in the queue) and an additional job is entered, the job will be rejected, and the message "QUEUE IS FULL" will be displayed. In this case, it is necessary to wait until the first job in the queue has been typeset before entering another job into the queue.

NOTE

Queuing capability is available as an option for customers who have the EditWriter Rev. A program.

In the Index, a number and an asterisk appear alongside those files which are in the queue. The number indicates the order in which the jobs will be set. As queued jobs are typeset, the numerical record of the jobs in the Index will be updated. Recalling the Index will display the current status of jobs in the queue.



While jobs are in queue to the photo unit the operator may still enter new jobs as files, or call previously entered files to the screen to make changes. However, during the time that a record or file is in queue, it is write protected. A queued record or file can be called to the screen from the disk, but it cannot be manipulated on the disk with REPLACE FILE, INSERT FILE, or DELETE FILE until the photo unit has completed typesetting the designated job. If any of these instructions are used when file or records are in queue, the message "FILE IN QUEUE" will be displayed on the Status Line. It is possible to call the queued file to the screen, and then re-enter it under a new file name in order to manipulate it on the disk.

When files or records are typeset from the queue all data is obtained from the disk. The disk should not be removed from the transport compartment until the queue is empty. Also, all typesetting parameters should be established at the beginning of a record or file. If typesetting parameters are not established, the photo unit will use those parameters as previously set.

NOTE

When a queue has been created, data or film feeds cannot be sent from the screen directly to the photo unit until the queue terminates. If attempted, the message ENTER THEN SET will appear indicating that the copy to be set must also be recorded as a file on the disk. However, when entered directly on disk the copy will be placed in the queue and set in the appropriate order. If the information is no longer needed the file can later be deleted from the disk.

Also, if copy is sent from the screen directly to the photo unit (using SET FILE, EXECUTE), the message "PHOTO UNIT BUSY" may appear. This occurs because the amount of copy entered into the photo unit memory has exceeded the 6,000 character capacity. To avoid this situation, first enter the data as a file and then send it to the photo unit. (Refer to Appendix D, Error Messages.)

SUMMARY—TYPESETTING SEQUENCES

KEYSTROKES	RESULTS
1. Input data can be stored on the floppy disk while simultaneously entering data into the queue. (with copy) [ENTER FILE] [TYPE SET] **NAME** [EXECUTE]	• Copy on the screen, up to but not including the cursor, is sent to the disk. • Copy enters into the photo unit queue for typesetting. • Number of jobs in queue increases by one. • The message line displays "# JOBS IN QUEUE", indicating the number of jobs in the queue.
2. (for subsequent records of same file) [ENTER FILE] [EXECUTE]	• Copy on the screen, up to but not including the cursor, is sent to the disk, as a record of an already existing file. • Copy enters into the photo unit queue for typesetting. • Number of jobs in queue increases by one. • The message line displays "# JOBS IN QUEUE", indicating the number of jobs in the queue.
3. (with no prior entries in queue) [SET FILE] [EXECUTE]	• Copy on screen, up to but not including the cursor, is sent directly to the typesetter for processing. • The message line displays "0 JOBS IN QUEUE".

KEYSTROKES	RESULTS
4. (with prior entries in queue) [SET FILE] [EXECUTE]	• Copy is not entered into the queue. • Message "ENTER THEN SET" appears in the message line. • Operator can use keystroke sequence #1 to enter file onto disk and queue, or wait until the queue is empty.
5. An entire file can be entered into the photo unit queue. The file will be set until completed. A file can be entered into the queue repeatedly, but will be indicated on the index as one job in queue. Keyboard operation can be continued without any interruption. [SET FILE] **NAME** [EXECUTE]	• Entire file enters the job queue. • Photo unit sets the entire file when it becomes number 1 in the queue. • Both keyboard and disk are immediately available for use by the operator.
6. Revised or edited copy can be typeset while being replaced onto the disk. The keyboard memory is ready for further operation as soon as transfer of data has been completed. (if first record or entire file) [CALL FILE] **NAME** [EXECUTE] [REPL FILE] [TYPE SET] [EXECUTE]	• A previously entered file is called to the screen. • The copy is edited and/or revised. • REPLACE FILE or INSERT FILE (with copy) sends job to the photo unit queue for typesetting. • Number of jobs in queue increases by one. • The message line displays "# JOBS IN QUEUE" indicating the number of jobs in queue.

TABULAR COMPOSITION

TABULAR COMPOSITION

The EditWriter has a versatile program for tabular composition. Three types of tabs, typewriter tabs floating tabs, and auto tabs, are available for use. Any combination of these different types of tabs can be used in a single job. The EditWriter can store instructions for nine tab columns at one time. However, a proficient operator can bypass this limitation with several different methods, i.e. using multijust, redefining tabs, etc. (These methods will be described in detail in the following pages.)

Points to remember when working with tabs:

1. Each tab is a miniature line length in which all the other typographic functions of the machine can be used.
2. The screen's Parameter Line displays the current tab parameters in use to aid the operator during keyboarding.
3. The EditWriter will remain in tabular mode until deactivated by the proper instruction.

TYPEWRITER TABS

The typewriter-like tabs on the EditWriter are called by that name because they are used in a manner similar to the tab system on a standard typewriter. In both machines, a single key produces an advance from one tab to another. The tabs on the EditWriter differ from those on a typewriter in that they are defined more specifically. The tab number, the starting position of the tab, the length of the tab, and the positioning of copy within the tab are all determined before copy is typed.

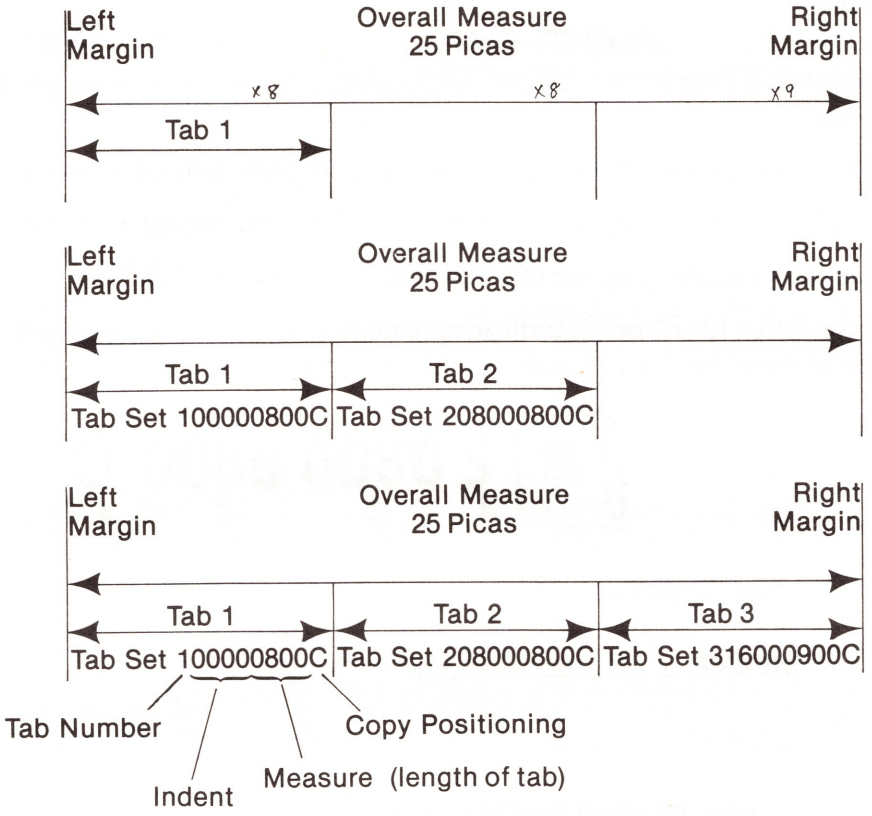
Entering Tab Parameters

Keystroke:

Screen Symbol: T B =

To begin the tab program, preliminary instructions, called tab parameters, must be entered. Tab parameters consist of a reference number for each tab, the indent of the tab from the left margin, the line length of the tab, and the position of copy within the tab. Both the tab indent and tab length are specified in picas and points (the same way the overall length was entered).

Copy may be automatically set flush left, flush right, centered or justified within a tab by including a positioning code in the tab parameters.

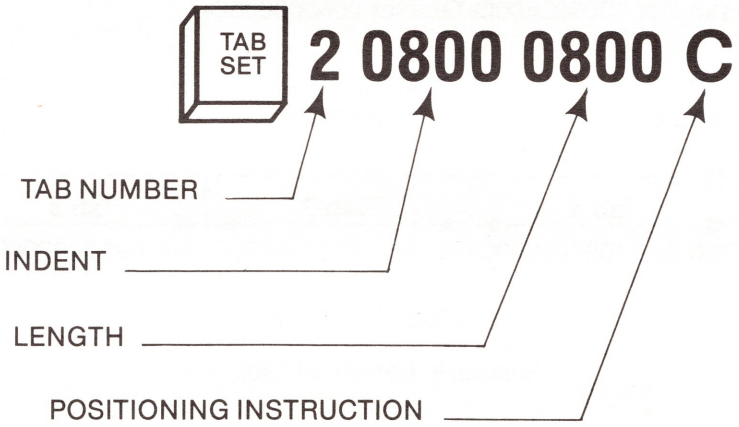


NOTE

The series of tabs illustrated above "abut." One tab starts at the point where the previous one stops. However, an operator may choose to place gutters between tabs and/or overlap tab columns as well. In any typewriter tab situation the tab position (indent) is always defined by its relationship to the left-hand margin.

To enter tab parameters:

1. Strike the TAB SET key located on the main keyboard. The following message will appear in the Status Line:
   TAB=__ INDENT=00:00 LGTH=00:00
   A mini-cursor will appear to the right of TAB, asking the operator to supply the necessary tab parameters.
2. Type a tab reference number from one to nine. (The first tab defined is normally TAB 1.)
3. Type four numbers representing the tab indent (in picas and points) from the left margin.
4. Type four numbers representing the tab length (in picas and points).
5. Type either the letter J,L,R, or C, indicating whether copy is to be set justified, quad left, quad right or centered within each tab.



(The tab parameters illustrated above refer to Tab 2 in the diagram on the previous page.)

NOTE

When copy positioning cannot be determined in advance, or when positioning varies from line to line (each time the tab is called), the letter J should be entered. This justified (J) instruction can then be manually overridden as needed by using the quadding keys (QL, QR, or QC) located on the main keyboard. However, the operator cannot utilize the QL, QR, or QC keys in a tab specified with an L, R, or C instruction in the initial tab set-up. Double quadding commands are not acceptable by the EditWriter.

Copy positioning instructions may also be changed within the tab job by calling the tab and striking PREC,L, PREC,R, PREC,C or PREC,J indicating that the copy is to be positioned left, right, center or justified. All copy in the tab from that point on will be positioned according to the new instruction.

CALLING A TAB

Once the tab parameters have been defined, tabs can be accessed randomly or sequentially, using the CALL TAB or TAB/EL keys. The CALL TAB key followed by a tab number is used to activate the tabular program for the first time after the parameters have been defined, or to select a tab out of numerical sequence. In tab mode the TAB/EL key is used to advance from one tab to another in numerical order; it no longer acts as an "end line" function.

To activate the tabular program:

1. Strike the CALL TAB key located in the upper-left keypad.
2. Type the number of the desired tab. The message line will display the parameters associated with that tab (the indent "IN=," the tab length "TL=", and the tab positioning code). When the tab number has been keyed, copy can be typed within that tab. As copy is input the "TL=" message changes to "TLR=", indicating the tab length remaining.

To call a tab out of sequence:

1. Strike the CALL TAB key.
2. Type the number of the desired tab; the message line displays the parameters associated with the tab called.

To advance from one tab to another in numerical sequence:

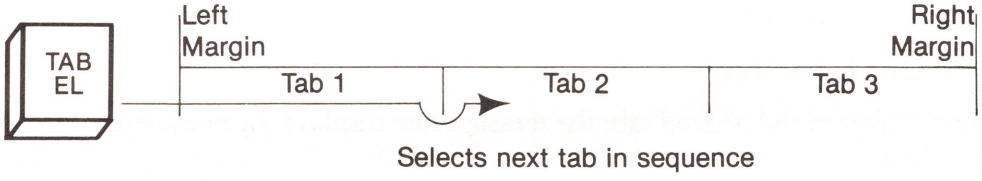
1. Strike the TAB/EL key located on the main keyboard. The carriage will automatically move to the next tab in numerical sequence and the parameters indicated in the message line will change accordingly.

Tab

Keystroke:

Screen Symbol: T B

The TAB key is used to select the next tab in sequence. When the key is depressed the symbol T B appears on the screen (in the line of copy), and the parameters indicated in the message area change accordingly. TAB is a line ending instruction, it ends the previous tab and sets the typed copy before advancing to the next tab. TAB can also be used to skip a blank column. For example, if the operator wishes to skip TAB 2 and go directly from TAB 1 to TAB 3, the TAB key may be hit twice. The first time it is hit, the EditWriter advances from TAB 1 to TAB 2. And the second time, from TAB 2 to TAB 3 (where the copy is input). Hitting TAB twice in this situation is probably faster than keying CALL TAB followed by the tab number. However, if the operator wishes to go from TAB 1 to TAB 6, or from TAB 6 back to TAB 5, the CALL TAB function (described below) would be used.

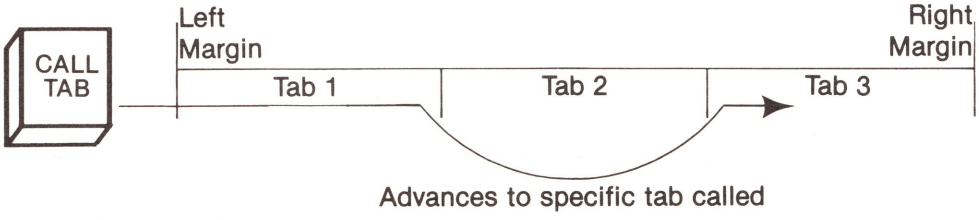


Call Tab

Keystroke:

Screen Symbol: C T

When a column is to be left blank or a tab is to be selected out of numerical sequence, the CALL TAB key followed by the number of the desired tab is used to advance to the next position. Like TAB, the CALL TAB key is a line ending code; it ends the previous tab and sets the typed copy before advancing to the next tab.



TAB LINE ENDINGS/DEACTIVATING TAB MODE

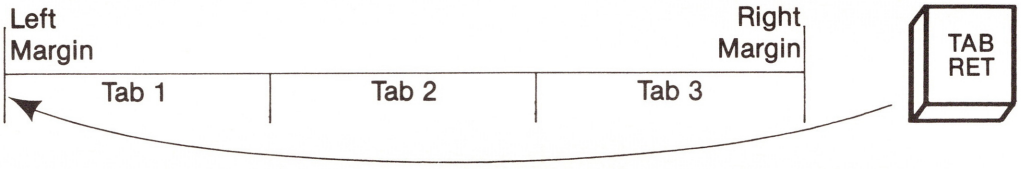
The operator may end a tab line by using TAB RETURN or just RETURN. The decision depends on how the next line of copy (after the RETURN command) will be positioned. When tabulation is completed, the tab mode must be deactivated.

Tab Return

Keystroke:

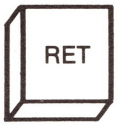
Screen Symbol:

This key, located on the main keyboard ends the last column on the line and positions the copy according to the parameters for that tab. The photographic material then advances the value of the stored line space and the carriage returns to the left margin. The message line will display the message "TAB=0", indicating that the overall line length has been restored. The operator may then type copy on the overall line length or strike the TAB key to advance to tab one.



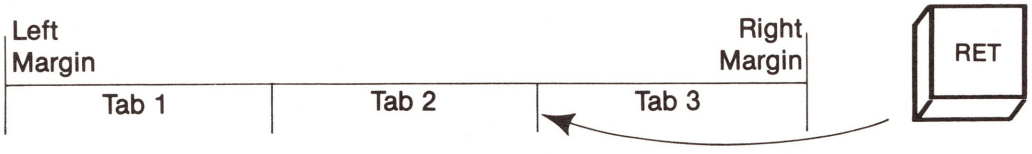
Returns the carriage to the left margin. Advances photographic material. Reestablishes the original line measure.

Return

Keystroke: 

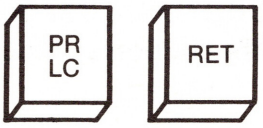
Screen Symbol:

This key may be used to end any column on a line, and to position the copy according to the parameters for that tab. The photographic material then advances the value of the stored line space and the carriage returns to the left margin of the same tab. This key is used when the operator wishes to type several consecutive lines within the same tab column.



In tab mode, returns the carriage to the left margin of the tab. Advances the photographic material.

Carriage Reset

Keystrokes: 

Screen Symbol: P↓C R▼R

Use Carriage Return to deactivate the tab mode:

1. Strike either PREC/UC or PREC/LC, RETURN to produce the carriage reset and deactivate the tab mode. This command sequence does not advance any leading. If necessary, strike RETURN again to advance lead.

Exercise: Set the following table using Typewriter Tabs.

8/10 Helios X17

X4 FL.	X7 FL.	X3 FL.	X3 FR.
MODEL	DESCRIPTION	WGHT.	PRICE X 10
Helios TSS-21	Machine stand	35 lbs.	$60.00
TSS-24	Projection table	31 lbs.	$45.00
TSS-50	Adjustable table	45 lbs.	$90.00

MARKED COPY

[SIZE] **08** [LINE SPACE] **100** [FONT] **3** [LINE LGTH] **1700** [SPACE BAR] [RET]

[TAB SET] **10000400L** [TAB SET] **20400 0700L** [TAB SET] **31100 0300L** [TAB SET] **41400 0300R** [RET]

[CALL TAB] **1** MODEL [TAB EL] DESCRIPTION [TAB EL] WGHT. [TAB EL] PRICE [TAB RET]

[PLUS LINE SP] [FONT] **1** [TAB EL] TSS-21 [TAB EL] Machine Stand [TAB EL] 35 lbs. [TAB EL] $60.00 [TAB RET]

[TAB EL] TSS-24 [TAB EL] Projection table [TAB EL] 31 lbs. [TAB EL] $45.00 [TAB RET]

[TAB EL] TSS-50 [TAB EL] Adjustable table [TAB EL] 45 lbs. [TAB EL] $90.00 [TAB RET]

[PR LC] [RET]

KEYBOARDING INSTRUCTIONS

MODEL	DESCRIPTION	WGHT.	PRICE
TSS-21	Machine Stand	35 lbs.	$60.00
TSS-24	Projection table	31 lbs.	$45.00
TSS-50	Adjustable table	45 lbs.	$90.00

TYPESET COPY

NOTE

There are many ways in which an operator can define tabs. This example can be set with one-pica gutters between each tab: $^{T}_{B}$100000300L$^{T}_{B}$204000600L$^{T}_{B}$311000200L$^{T}_{B}$414000300R

FLOATING TABS

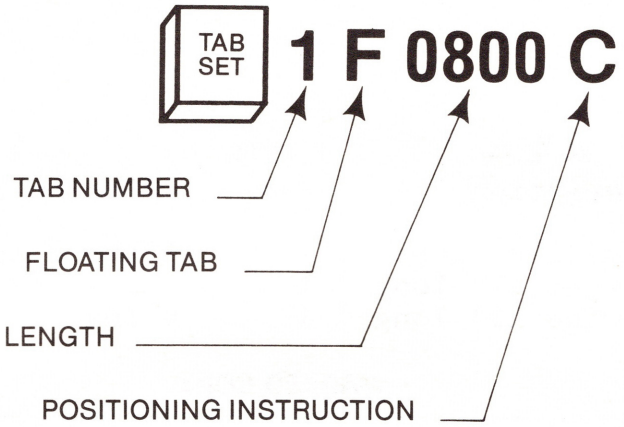
As its name implies, a floating tab is one that floats or moves within a line. The floating tab has no specified indent—it is positioned wherever the operator calls it into use on the line. The floating tab does, however, have a specified length.

Floating tabs are totally dependent on the location of the carriage for their starting point. For example, a floating tab is specified as five picas in length. If the carriage is on the left margin of the page when the tab is called by number, the tab starts there (at point 0) and extends five picas. If the carriage is indented by four picas, the same floating tab called in at that position will begin at the four-pica indent. Floating tabs give the operator the ability to define any tab by length, yet complete freedom as to where it is used on the line.

Up to nine floating tabs can be defined. Once defined, a floating tab can be used as many times as necessary within a line.

To enter floating tab parameters:

1. Strike the TAB SET key located on the main keyboard. The following message will appear in the Status Line:
   TAB=0 INDENT=00:00 LGTH=00:00
2. Type the tab reference number from one to nine.
3. Type the letter "F." (This letter is typed in place of the four digits that specify an indent for typewriter tabs. It indicates that the tab is a floating tab which has no specified indent.)
4. Type four numbers representing the tab length (in picas and points).
5. Type either the letter J,L,R, or C, indicating whether copy is to be set justified, quad left, quad right, or centered within the tab. (If copy positioning within the floating tab will vary from column to column or from line to line within a column, the letter J should be entered. This instruction may then be manually overridden as needed by using the quadding keys located on the main keyboard. (Refer to the Note on p. 110 for more detailed information.)



A floating tab might be designated when the same column width appears several times in a complex table. Because a floating tab can be called as many times as necessary across a line length, it allows the operator to create more columns than would normally be available with nine fixed tab settings. For example, the exercise on the following page appears to have five tab columns. However, because the tab lengths are repeated, floating tabs can be used. The result: only two tabs are needed to typeset the job!

Line endings for floating tabs are the same as those used with typewriter tabs. A TAB RETURN will return the carriage to the left margin and restore the overall line measure. A RETURN will return the carriage to the left margin of the same tab column.

At times it might be necessary to leave a floating tab column empty and proceed to the next tab.

To step through a blank floating tab:

1. Call the desired tab.
2. Strike the spaceband or any of the fixed spaces (em, en, thin). The blank space inserted will activate the carriage to move through the tab.
3. Call the next desired tab.

Exercise: Set the following table using Floating Tabs:

8/10 Helios Bold X22

X3 FL.	X6 1/2 FL.	X3 FL.	X6 1/2 FL.	X3 FL.
Model	Description	Pack	Shipping Weight	Price
Helios TU-76	7" wide 8" long	1	1 lb. 2 oz.	$18.00
TU-712	7" wide 12" long	1	2 lbs. 12 oz.	$26.00
TU-718	7" wide 18" long	1	4 lbs.	$35.00

+10

MARKED COPY

[SIZE] **08** [LINE SPACE] **100** [FONT] **4** [LINE LGTH] **2200** [SPACE BAR] [RET]

[TAB SET] **1 F 0300L** [TAB SET] **2 F 0606L** [RET]

[CALL TAB] **1** Model [TAB EL] Description [CALL TAB] **1** Pack [TAB EL] Shipping Weight [CALL TAB] **1** Price [TAB RET]

[PLUS LINE SP] [FONT] **1** [TAB EL] TU-76 [TAB EL] 7'' wide 8'' long [CALL TAB] **1** 1 [TAB EL] 1 lb. 2 oz. [CALL TAB] **1** $18.00 [TAB RET]

[TAB EL] TU-712 [TAB EL] 7'' wide 12'' long [CALL TAB] **1** 1 [TAB EL] 2 lbs. 12 oz. [CALL TAB] **1** $26.00 [TAB RET]

[TAB EL] TU-718 [TAB EL] 7'' wide 18'' long [CALL TAB] **1** 1 [TAB EL] 4 lbs. [CALL TAB] **1** $35.00 [TAB RET]

[PR LC] [RET]

KEYBOARDING INSTRUCTIONS

Model	Description	Pack	Shipping Weight	Price
TU-76	7″ wide 8″ long	1	1 lb. 2 oz.	$18.00
TU-712	7″ wide 12″ long	1	2 lbs. 12 oz.	$26.00
TU-718	7″ wide 18″ long	1	4 lbs.	$35.00

TYPESET COPY

MULTIJUST

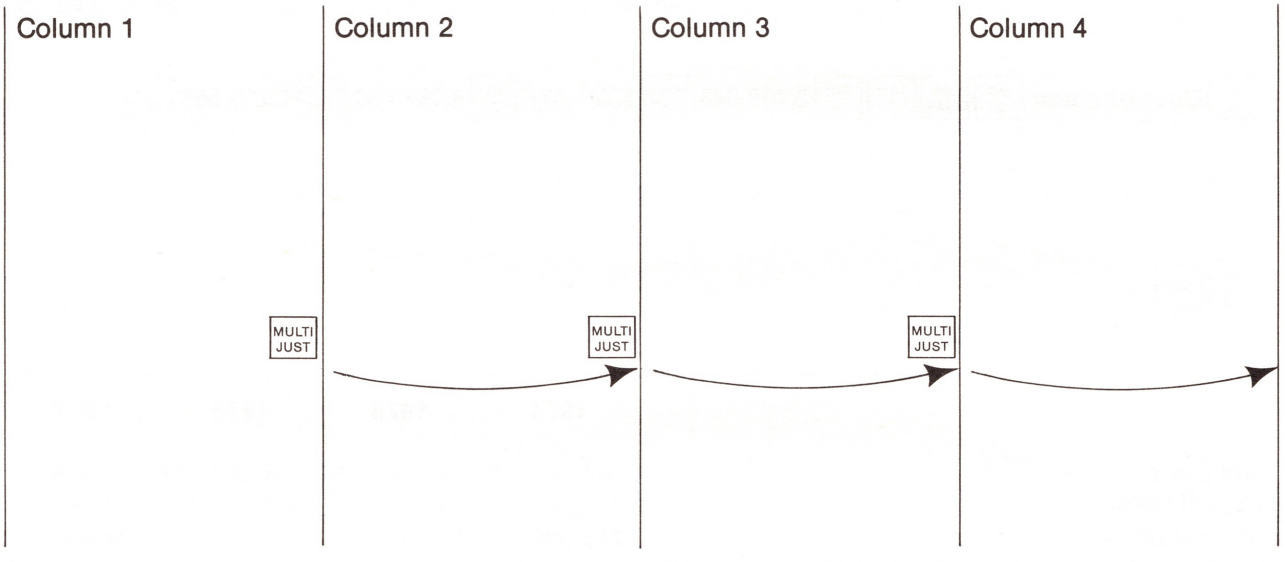
Keystroke:

Screen Symbol: M J

Multijust is a "tab-like" feature that repeats a single line length or tab length across the baseline. The key is located on the right side of the main keyboard. Once a tab has been called, striking MULTI-JUST will repeat the measure, forming a second column to the right of the original column. The parameters for the second column will be the same as the first, except for the indent.

Typewriter tabs and multijusted tabs can be used together in one job. The operator may, at any time, call the next typewriter tab in numerical order with TAB/EL or call a tab out of sequence with CALL TAB and a number. By using any of the fixed spaces (described on pp.59-61), the operator can create a "multijust" tab column, leave it blank, and then go on to the next desired multijust tab or typewriter tab.

There are no special requirements for using MULTIJUST, except that the overall line length of 45 picas must not be exceeded. (The EditWriter 7770 accepts an overall line length of up to 70 picas.)



Creates multiple columns of equal width

Exercise: Set the following financial statement using Multijust:

10/12 Helios X38 X18 JUST. Helios Bold X5 FR. X5 FR. X5 FR. X5 FR. +12

	1974	1975	1976	1977
Net sales.....	$4,764,802	$5,240,184	$5,018,066	$8,568,046
Cost of sales.....	2,489,043	2,787,477	3,267,080	4,218,568
Income taxes.....	145,000	117,500	275,000	484,600

MARKED COPY

[SIZE] **10** [LINE SPACE] **120** [FONT] **3** [LINE LGTH] **3800** [SPACE BAR] [RET]

[TAB SET] **1 0000 1800J** [TAB SET] **2 1800 0500R** [RET]

[CALL TAB] **2** 1974 [MULTI JUST] 1975 [MULTI JUST] 1976 [MULTI JUST] 1977 [TAB RET]

[PLUS LINE SP] [TAB EL] [FONT] **1** Net Sales [INS SP] [INS CHAR] [EN • !] [TAB EL] $4,764,802 [MULTI JUST] $5,240,184 [MULTI JUST] $5,018,066 [MULTI JUST] $8,568,046 [TAB RET]

[TAB EL] Cost of sales [INS SP] [INS CHAR] [EN • !] [TAB EL] 2,489,043 [MULTI JUST] 2,787,477 [MULTI JUST] 3,267,080 [MULTI JUST] 4,218,568 [TAB RET]

[TAB EL] Income taxes [INS SP] [INS CHAR] [EN • !] [TAB EL] 145,000 [MULTI JUST] 117,500 [MULTI JUST] 275,000 [MULTI JUST] 484,600 [TAB RET]

[PR LC] [RET]

	1974	1975	1976	1977
Net Sales.....	$4,764,802	$5,240,184	$5,018,066	$8,568,046
Cost of sales.....	2,489,043	2,787,477	3,267,080	4,218,568
Income taxes.....	145,000	117,500	275,000	484,600

TYPESET COPY

AUTO TABS (Automatic Tabs)

Keystroke: AUTO TAB **Screen Symbol:** A T

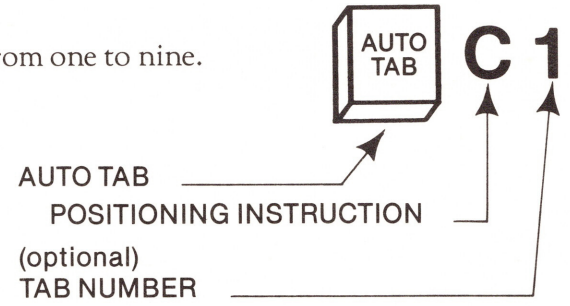
The EditWriter is capable of automatically calculating a tab indent and a tab length when these values are unknown. Tabs of this type are called Auto Tabs. They differ from typewriter tabs only in that the EditWriter performs all calculations of tab parameters. The indent is based on the carriage position at the time the beginning of the tab is defined. The tab length is based on the carriage position at the time an instruction to close the tab is typed. Auto tabs allow the operator to typeset a wide variety of complex tabular material without extensive advance copy preparation.

Auto tabs may be used to set justified, flush left or flush right composition within the space occupied by a centered headline. They may also be used to set up a tab for one word that is to be underscored or to set up an indent that is the width of one or several characters, so that justified material may be set alongside. And, in outline work, auto tabs permit indents to be made easily. Auto tabs free the operator from the responsibility of typing indent and tab lengths manually, thus eliminating manual calculation and potential errors. (Refer to the exercise on p. 124 for a good example of outlining, and the exercise on p. 131 for an example of using auto tabs for underlining.)

All or any of the nine tabs available may be set up automatically as auto tabs. More than one auto tab may be set up on a single line. Each auto tab is defined using the procedures described on the following pages, regardless of any other tabs that may appear on the line.

To set up an auto tab:

1. To define the beginning of the auto tab, strike the AUTO TAB key, located on the upper-left keypad, at the position where the tab is to begin. Using the AUTO TAB key signals the EditWriter that indent and length calculations will be made automatically.
2. To define the position of the copy within the auto tab, type L,R, or C, indicating quad left, quad right or center. If no positioning instruction is entered, copy will be set justified within the tab.
3. Type the tab number from one to nine.

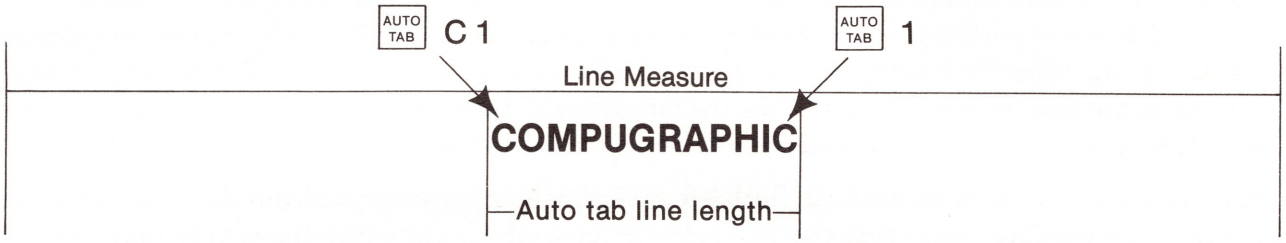


NOTE

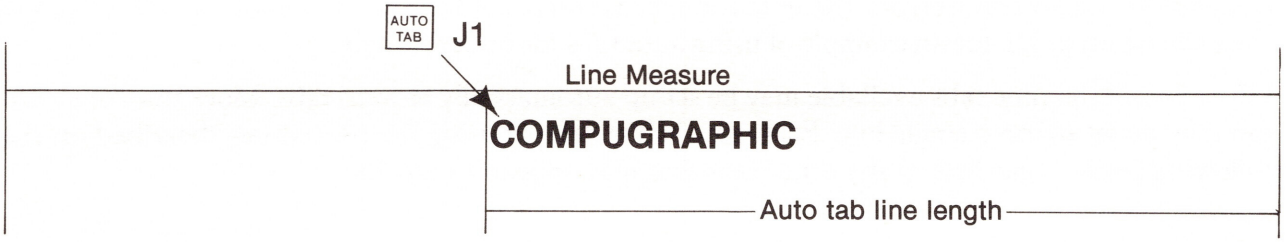
In many auto tab applications it would be best to justify the copy and leave out the initial positioning instruction. This is especially important if an auto tab is used for underlining. When an auto tab is qualified with a positioning instruction, as shown above, the operator will not be able to use the Insert Space or Insert Character functions.

To define the tab length:

1. At the point in the copy at which the tab is to end, strike the AUTO TAB key a second time. The second AUTO TAB keyed signals the EditWriter that the tab ends wherever the character immediately preceding it falls, thus establishing the tab length.
2. Type the number of the tab which is being defined.



If no "tab close" instruction is typed, the auto tab will have a length equal to the space remaining on the line (from the point where AUTO TAB was keyed to the point where the line was ended).



If no positioning instruction is entered, the tab will automatically default to justified positioning.

NOTE

Once an auto tab has been defined, its parameters will appear in the screen message area, just as if it were a typewriter or floating tab. The only difference being that the EditWriter rather than the operator, calculates the indent and tab length. The MULTIJUST function can be used with auto tabs to repeat the same tab column length.

To call an auto tab:

1. Strike the CALL TAB key followed by the number of the auto tab, or if the tab mode is already in effect, use the TAB key. (Calling an auto tab into use is no different than calling a typewriter tab.) Indent and length values will appear in the message line as if they had been typed by the operator.

Exercise: Set the following copy using Auto Tabs:

30|14 Helios Bold X 30 FL.
12| center

```
Meridian Associates
promotion/public relations
```

MARKED COPY

[SIZE] 30 [LINE SPACE] 140 [FONT] 3 [LINE LGTH] 3000 [SPACE BAR] [RET]

[AUTO TAB] C 1 Meridian Associates [AUTO TAB] 1 [QL] [RET]

[SIZE] 12 [CALL TAB] 1 promotion [FWD] / [FWD] public relations [RET]

[PR LC] [RET]

KEYBOARDING INSTRUCTIONS

Meridian Associates

promotion/public relations

TYPESET COPY

NOTE

Refer to the Keyboarding Instructions above. The "C" entered in the auto tab set-up defines the quadding of any copy entered once the tab is called (using CALL TAB). "Meridian Associates" is set on the overall line length and requires a quadding command (QL) to position it on the line. However, "promotion/public relations" is preceded by the CALL TAB command and therefore, it is automatically quad centered underneath the head "Meridian Associates."

Exercise: Set the following outline using Auto Tabs.

12/14 Helios X40 FL.

```
1. Operations Research Committee
   A. Composed of individuals active in operations research
   B. Provides interdepartmental coordination
      1. Research projects
      2. Operational procedures
```

MARKED COPY

ϟ [SIZE] **12** [LINE SPACE] **140** [FONT] **1** [LINE LGTH] **4000** [SPACE BAR] [RET]

I. [EN] [AUTO TAB] **1** Operations Research Committee [QL] [TAB RET]

[CALL TAB] **1** A. [EN] [AUTO TAB] **2** Composed of individuals active in operations research [QL] [TAB RET]

[TAB] B. [QL] [TAB] Provides interdepartmental coordination [QL] [TAB RET]

[TAB] [TAB] 1. [EN] Research projects [QL] [RET]

2. [EN] Operational procedures [QL] [RET]

[PR LC] [RET]

KEYBOARDING INSTRUCTIONS

---

1. Operations Research Committee
   A. Composed of individuals active in operations research
   B. Provides interdepartmental coordination
      1. Research projects
      2. Operational procedures

TYPESET COPY

NOTE

Two auto tabs are used to set up this outline. Also, note the use of TAB RETURN and RETURN.

TABULATION SUMMARY

XXXX = Indent (4 digits)
YYYY = Tab Length (4 digits)
Q = Quad Code (J,L,R,C)
N = Tab Number (1-9)

	Typewriter Tabs	Auto Tabs	Floating Tabs
To Set Up Tabs	[TAB SET] NXXXXYYYYQ	[AUTO TAB] QN[10] or [AUTO TAB] N	[TAB SET] NFYYYYQ
To Call Tabs	[CALL TAB] N	[CALL TAB] N	[CALL TAB] N
To "Step Through" a Tab	[TAB EL]	[CALL TAB] N, then call next tab	[CALL TAB] N, [SPACE BAR] (or any fixed space) then call next tab
[RET]	• Ends tab line • Feeds photo material • Stays in tab field addressed	• Ends tab line • Feeds photo material • Stays in tab field addressed	• Ends tab line • Feeds photo material • Stays in tab field addressed
[TAB RET]	• Ends line • Feeds photo material • Returns to left-hand margin	• Ends line • Feeds photo material • Returns to left-hand margin	• Ends line • Feeds photo material • Returns to left-hand margin
[TAB EL]	• Ends line • Advances to next tab	• Ends line • Advances to next tab	• Ends line • Advances to next tab
[MULTI JUST]	• Ends line • Repeats previous tab measure	• Ends line • Repeats previous tab measure	• Ends line • Repeats previous tab measure
To Deactivate Tab Mode	[PR LC][11] [RET]	[PR LC] [RET]	[PR LC] [RET]

[10] Quadding instructions are optional in auto tabs. An auto tab without a quadding command defaults to a J instruction.
[11] PR/LC or PR/UC may be used.

PRACTICE EXERCISES

PRACTICE EXERCISES

The exercises on the following pages combine all of the EditWriter functions reviewed in this manual. After reading the sections and reviewing them thoroughly, set the samples using the most efficient methods possible. Recommended procedures and keystrokes are shown on the back of each page. Remember, different methods can be used to produce the same output. Use the procedures that are the most comfortable and understandable for you. Compare your procedure with the one shown to see which requires the least amount of effort for the operator.

Exercise 1:

8/30 Helios X20 FL.

revised listing

18/ Helios Bold Center

DIRECTORS

10/12 Just.

```
Charles E. Cotting...............1912
Hall Nichols.....................1916
W. Houston Kenyon Jr.............1925
Roy E. Larsen....................1925
Thayer Cummings..................1926
Robert P. MacFadden..............1928
```

MARKED COPY

---

revised listing **DIRECTORS**

Charles E. Cotting 1912
Hall Nichols 1916
W. Houston Kenyon Jr. 1925
Roy E. Larsen 1925
Thayer Cummings 1926
Robert P. MacFadden 1928

TYPESET COPY

Exercise 1:

ϟ [SIZE] **18** [LINE SPACE] **300** [FONT] **4** [LINE LGTH] **2000** [SPACE BAR] [RET]

DIRECTORS [QC] [TAB EL]

[FONT] **1** [SIZE] **08** revised listing [QL] [RET]

[SIZE] **10** [LINE SPACE] **120** Charles E. Cotting
[INS SP] [INS CHAR] [EN •] 1912 [RET]

Hall Nichols [INS SP] [INS CHAR] [EN •] 1916 [RET]

W. Houston Kenyon Jr. [INS SP] [INS CHAR] [EN •] 1925 [RET]

Roy E. Larsen [INS SP] [INS CHAR] [EN •] 1925 [RET]

Thayer Cummings [INS SP] [INS CHAR] [EN •] 1926 [RET]

Robert P. MacFadden [INS SP] [INS CHAR] [EN •] 1928 [RET]

KEYBOARDING INSTRUCTIONS

Exercise 2:

30/24 Helios Bold
X24

VMOS: the
new technology
from +12
36/8-{AMI
6/Helios Lt. American Microsystems, Inc.

MARKED COPY

VMOS: the new technology from AMI

AMERICAN MICROSYSTEMS, INC.

TYPESET COPY

Exercise 2:

ϟ [SIZE] 30 [LINE SPACE] 240 [FONT] 4 [LINE LGTH] 2400 [SPACE BAR]
[CHAR COMP] [CHAR COMP SET] 12 [RET]

VMOS: the [QC] [RET]

new technology [QC] [RET]

from [LINE SPACE] 120 [PLUS LINE SP] [SIZE] 36 [AUTO TAB] L 1 AMI
[QC] [LINE SPACE] 080 [RET]

[CALL TAB] 1 [SIZE] 06 [FONT] 1 [CHAR COMP]
AMERICAN MICROSYSTEMS, INC. [RET]

[PR LC] [RET]

KEYBOARDING INSTRUCTIONS

Exercise 3:

12/12 Helios X 20 FL.

36/ Helios Bold [1 Food for your table. Our agricultural marketing company supplies premium quality fruits and vegetables, almonds, dates and raisins under the Sun Giant label to food stores across the country.

MARKED COPY

1 Food for your table.Our agricultural marketing company supplies premium quality fruits and vegetables, almonds, dates and raisins under the Sun Giant label to food stores across the country.

TYPESET COPY

Exercise 3:

[SIZE] 36 [LINE SPACE] 120 [FONT] 4 [LINE LGTH] 2000 [SPACE BAR] [RET]

[SPACE ONLY] 1 [SIZE] 12 [EM] [AUTO TAB] 1 [FONT] 1 [SPACE ONLY] Food for your table. [AUTO TAB] 1 Our agricultural [QL] [TAB EL]

[CALL TAB] 1 [+1 PT SPACE] [+1 PT SPACE] [SIZE] 06 [INS CHAR] [PR UC] 0 [RET]

[−1 PT SPACE] [−1 PT SPACE] [PR LC] [RET]

[SIZE] 36 [FONT] 4 [SPACE ONLY] 1 [SIZE] 12 [SPACE ONLY] [EM] [FONT] 1 marketing company supplies premium [QL] [RET]

[SIZE] 36 [FONT] 4 1 [SIZE] 12 [EM] [FONT] 1 quality fruits and vegetables, almonds, [QL] [RET]

dates and raisins under the Sun Giant label to food stores across the country. [QL] [RET]

KEYBOARDING INSTRUCTIONS

Exercise 4:

10/12 Helios Bold
X26 Just.

CLASSES WITH HIGHEST NUMBER PARTICIPATING +12

Helios

1948.....Francis D. Murnagham, Jr.....372
Irwin Schneiderman
1949.....Edward T. Matheny, Jr.....310
Ross E. Traphegen, Jr.
1963.....Allan B. Goldman.....305
1959.....Tom Watson Brown.....295
John E. Young
1958.....Richard J. Medalie.....295
John N. Williams
1961.....Theodore Mack..... 277
1967.....Charles L. Brock.....275

MARKED COPY

CLASSES WITH HIGHEST NUMBER PARTICIPATING

1948	Francis D. Murnagham, Jr.	372
	Irwin Schneiderman	
1949	Edward T. Matheny, Jr.	310
	Ross E. Traphegen, Jr.	
1963	Allan B. Goldman	305
1959	Tom Watson Brown	295
	John E. Young	
1958	Richard J. Medalie	295
	John N. Williams	
1961	Theodore Mack	277
1967	Charles L. Brock	275

TYPESET COPY

Exercise 4:

ϟ [SIZE] 10 [LINE SPACE] 120 [FONT] 4 [LINE LGTH] 2600 [SPACE BAR] [RET]

[TAB SET] 1 0000 0800J [TAB SET] 2 0800 1800J [RET]

CLASSES WITH HIGHEST NUMBER PARTICIPATING [QC] [RET]

[RET]

[FONT] 1 [CALL TAB] 1 1948 [INS SP] [INS CHAR] [EN •] [TAB EL] Francis D. Murnagham, Jr. [INS SP] [INS CHAR] [EN •] 372 [RET]

Irwin Schneiderman [QL] [TAB RET]

[TAB EL] 1949 [INS SP] [INS CHAR] [EN •] [TAB EL] Edward T. Matheny, Jr. [INS SP] [INS CHAR] [EN •] 310 [RET]

Ross E. Traphegen, Jr. [QL] [TAB RET]

[TAB EL] 1963 [INS SP] [INS CHAR] [EN •] [TAB EL] Allan B. Goldman [INS SP] [INS CHAR] [EN •] 305 [TAB RET]

[TAB EL] 1959 [INS SP] [INS CHAR] [EN •] [TAB EL] Tom Watson Brown [INS SP] [INS CHAR] [EN •] 295 [RET]

John E. Young [QL] [TAB RET]

[TAB EL] 1958 [INS SP] [INS CHAR] [EN •] [TAB EL] Richard J. Medalie [INS SP] [INS CHAR] [EN •] 295 [RET]

John N. Williams [QL] [TAB RET]

[TAB EL] 1961 [INS SP] [INS CHAR] [EN •] [TAB EL] Theodore Mack [INS SP] [INS CHAR] [EN •] 277 [TAB RET]

[TAB EL] 1967 [INS SP] [INS CHAR] [EN •] [TAB EL] Charles L. Brock [INS SP] [INS CHAR] [EN •] 275 [TAB RET]

KEYBOARDING INSTRUCTIONS

Exercise 5:

8/10 Helios X35

Helios Bold

Area (X6)	Chairman (X11)	Number Participating (X6)		Graduates Participating (X6)		Total Gift (X6)	
ALABAMA....	WILLIS C. DARBY, JR.,'48	40	46	41.48	50	5,791.31	39
ALASKA.....	BRIAN J. BUNDIN, '64	15	60	34.88	63	1,435.00	70
ARIZONA....	RONALD E. WARNICKE,'65	44	43	33.06	66	8,735.00	31

MARKED COPY

Area	Chairman	Number Participating		Graduates Participating		Total Gift	
ALABAMA	WILLIS C. DARBY,JR., '48	40	46	41.48	50	5,791.31	39
ALASKA	BRIAN J. BUNDIN, '64	15	60	34.88	63	1,435.00	70
ARIZONA	RONALD E. WARNICKE, '65	44	43	33.06	66	8,735.00	31

TYPESET COPY

Exercise 5:

[SIZE] 12 [LINE SPACE] 100 [FONT] 4 [LINE LGTH] 3500 [SPACE BAR] [RET]

[TAB SET] 1 0000 0600C [TAB SET] 2 0600 1100C [TAB SET] 3 F 0206R [TAB SET] 4 F 0306R [TAB SET] 5 1700 0600C [TAB EL]

[INS CHAR] [PR UC] 0 [RET]

[CALL TAB] 5 [SIZE] 08 Number [MULTI JUST] Graduates [MULTI JUST] Total [TAB RET]

[TAB EL] Area [TAB EL] Chairman [CALL TAB] 5 Participating [MULTI JUST] Participating [MULTI JUST] Gift [LINE SPACE] 040 [TAB RET]

[SIZE] 12 [INS CHAR] [PR UC] 0 [LINE SPACE] 100 [RET]

[+1 PT SPACE] [+1 PT SPACE] [+1 PT SPACE] [TAB EL] [PR UC] J [FONT] 1 [SIZE] 08 ALABAMA [INS SP] [INS CHAR] [EN •] [TAB EL] [PR UC] L WILLIS C. DARBY, JR., '48 [TAB EL] 40 [MULTI JUST] 46 [TAB EL] 41.48 [CALL TAB] 3 50 [TAB EL] 5,791.31 [CALL TAB] 3 39 [TAB RET]

[TAB EL] ALASKA [INS SP] [INS CHAR] [EN •] [TAB EL] BRIAN J. BUNDIN, '64 [TAB EL] 15 [MULTI JUST] 60 [TAB EL] 34.88 [CALL TAB] 3 63 [TAB EL] 1,435.00 [CALL TAB] 3 70 [TAB RET]

[TAB EL] ARIZONA [INS SP] [INS CHAR] [EN •] [TAB EL] RONALD E. WARNICKE, '65 [TAB EL] 44 [MULTI JUST] 43 [TAB EL] 33.06 [CALL TAB] 3 66 [TAB EL] 8,735.00 [CALL TAB] 3 31 [TAB RET]

[PR LC] [RET]

KEYBOARDING INSTRUCTIONS

Exercise 6:

10/14 HELIOS BOLD
FL. X12

6/7 HELIOS LT.
JUST. X18

JANUARY:
ATLANTA:
THE CONVENTION CITY:

Advertising Opportunity for hotels/motels, restaurants, convention services, transportation companies, tour firms, attractions, sports, recreation and retailers. Special: 25,000 additional reprints will be furnished to ACVB, ASAE members, national meeting planners, World Congress Center, Atlanta Chamber of Commerce, full-time consultates, airlines and advertisers. Circulation for this reprint section boosted 100 percent and ad rates only 50 percent.

MARKED COPY

JANUARY:
ATLANTA:
THE CONVENTION CITY:

Advertising Opportunity for hotels/motels, restaurants, convention services, transportation companies, tour firms, attractions, sports, recreation and retailers. **Special:** 25,000 additional reprints will be furnished to the ACVB, ASAE members national meeting planners, World Congress Center, Atlanta Chamber of Commerce, full-time consulates, airlines and advertisers. Circulation for this reprint section boosted 100 percent and ad rates only 50 percent.

TYPESET COPY

Exercise 6:

[SIZE] **10** [LINE SPACE] **140** [FONT] **4** [LINE LGTH] **3000** [SPACE BAR] [RET]

[TAB SET] **1 0000 1200L** [TAB SET] **2 1200 1800J** [RET]

[CALL TAB] **1** JANUARY: [RET]

ATLANTA: [RET]

THE CONVENTION CITY: [TAB EL] [MINUS LINE SP] [MINUS LINE SP] [SIZE] **06** [LINE SPACE] **070** Advertising Opportunity [FONT] **1** for hotels/motels, restaurants, convention services, transportation companies, tour firms, attractions, sports, recreation and retailers. [QL] [RET]

[FONT] 4 Special: [FONT] **1** 25,000 additional reprints will be furnished to the ACVB, ASAE members national meeting planners, World Congress Center, Atlanta Chamber of Commerce, full-time consulates, airlines and advertisers. Circulation for this reprint section boosted 100 percent and ad rates only 50 percent. [QL] [RET]

[PR LC] [RET]

KEYBOARDING INSTRUCTIONS

7700

7700

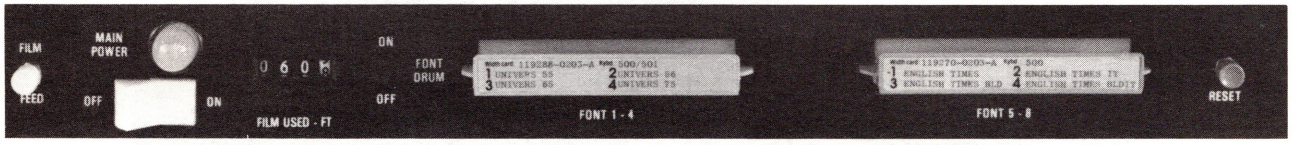
The EditWriter 7700 is a high-speed version of the 7500 combining all of the functions and capabilities of the 7500 with speeds of 50 to 80 lines-per-minute. The standard operating speed of the 7700 is 50 lines-per-minute. But, speeds of 80 lines-per-minute can be obtained by duplicating one or more of the type styles resident in the photo unit. The standard operating procedures and functions of the 7500 can be applied to the 7700. However, several additional features of the 7700 are described on the following pages.

Film Feed

All EditWriter 7700s have a manual continuous film feed with counter, located to the right of the Power On/Off switch. When activated, the counter shows the number of feet (in tenths) of photographic material used. It should be set to "zero" each time a new roll of paper or film is inserted. Film Feed can also be activated by using the FILM FEED function key (located in the right File Management pad), combined with the Set File function. (See File Management, Entering a File and Typesetting, pp. 37-38.)

Font Drum Power Switch

The Font Drum Power Switch controls power to the font drum and the locking mechanism of the font drum compartment. This locking mechanism, when on, prevents access to the font compartment. To open the cover, leave the main power supply On and turn the Font Drum Power Switch Off. Approximately 20 seconds after the font drum is turned off, the lock on the cover will be released and the drum will stop rotating.



NOTE

Remember, too, that there are specific photographic materials (RC and Type S paper) and exposure controls that must be used with the high-speed EditWriter 7700. Also, photographic material loading and filmstrip loading procedures are somewhat different for the 7700. Refer to the Machine Components tab (in the EditWriter 7500 section, p. 13) for specific information.

Photo Unit

The EditWriter 7700 has a multi-speed photo unit with a maximum speed of 80, 8-point, 11-pica lines-per-minute. Maximum speed is obtained by duplicating type styles in the complementary track position on the companion filmstrip. (Tracks 1 and 5, 2 and 6, 3 and 7, and 4 and 8 would be complementary track positions; they rotate in the same "track" or circle.) It is not necessary to duplicate all type styles on the filmstrip for high-speed operation. If all styles are duplicated, type selection is limited to four faces.

The speed of the 7700 is determined by both the speed of the font drum and the selection of either the Duplicate Font Mode or Unique Font Mode. The speed of the font drum is controlled by a switch setting in the font compartment. The high-speed position is the normal mode of operation. The low speed is used only where maximum character fit in larger point sizes is required.

In the Unique Font Mode (50 lines-per-minute), eight different type styles on the filmstrips are accessible. The photo unit photographs only one character from the designated style per font drum revolution. In the Duplicate Font Mode (80 lines-per-minute) the system can access characters from either of the tracks with the duplicated type styles. Therefore, if positions 1 and 5 contain the exact same font, the photo unit can photograph two characters per revolution.

To establish the Duplicate Font Mode (the default mode), strike the keys FONT, 9. "DF" is indicated in the screen message area. Fonts 5-8 cannot be accessed in the Duplicate Font Mode. If they are called an audible tone signals an invalid command. CNCL CHAR can be used to correct the error.

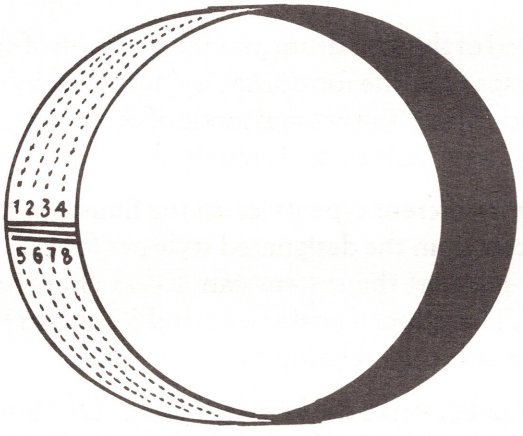
To reestablish the Unique Font Mode, indicated by "UF", strike FONT, 0 (Zero), or INIT, EXECUTE, or RESET.

Summary: High Speed: Normal mode of operation
Low Speed: Maximum character fit
FONT, 9: Selects Duplicate Font Mode
FONT, 0 or INIT, EXECUTE or RESET: reestablishes Unique Font Mode

Filmstrip Arrangements:

Sample #1

High Speed
80 lines-per-minute
Duplicate Filmstrips



Fonts 1-4

English Times
English Times Italic
English Times Bold
English Times Bold Italic

Fonts 5-8

English Times
English Times Italic
English Times Bold
English Times Bold Italic

Sample #2

High Speed
50 lines-per-minute
Eight Unique Fonts

Fonts 1-4

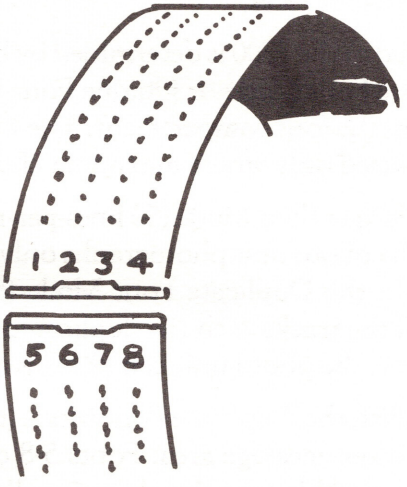
Helios II
Helios Italic II
Helios Bold II
Helios Bold Italic II

Fonts 5-8

English Times
English Times Italic
English Times Bold
English Times Bold Italic

Sample #3

Mixed
50 or 80 lines-per-minute
Two Fonts Duplicated



Fonts 1-4

English Times
English Times Italic
Helios Bold II
Helios Bold Italic II

Fonts 5-8

English Times
English Times Italic
Korinna
Korinna Heavy

NOTE

When the operator changes from Duplicate Font Mode to Unique Font Mode (in the same job) "UF" must be reestablished manually, using Font 0.

For more specific operating instructions, refer to the EditWriter 7500 tab.

7300

7300

The EditWriter 7300 is identical in appearance and operation to the standard EditWriter except for the number of type styles on-line. The 7300 includes a composition management keyboard, a video display screen, computer-managed storage retrieval and an output phototypesetter. However, the photo unit provides for unrestricted mixing of four, rather than eight, type styles on-line.

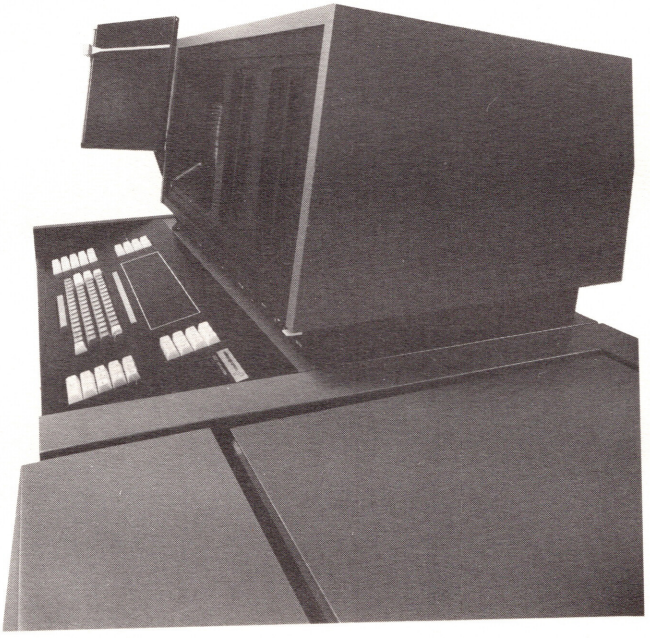


Photo Unit

Like the 7500, the EditWriter 7300 is available in low- and high-range models.[12]

The photo unit of the 7300 can set 48 different size/style combinations on-line at a speed of 18 lines-per-minute. Like its predecessor, the 7500, it utilizes two filmstrips, each containing two styles. (The filmstrips for the 7300 are the same as those used in Compugraphic's CompuWriter 48.) Just as with the 7500, the top filmstrip is loaded in position 1-4, and the bottom one in position 5-8. The fonts, however, are located in positions 1, 2, 5 and 6 and are accessed by keying FONT 1, FONT 2, FONT 5, and FONT 6. Positions 3, 4, 7 and 8 are blank and cannot be accessed. If any of these fonts are called by mistake, the message "WRONG FONT" will appear on the message line of the screen.

Upgradability

The 7300 cannot be upgraded to a 7500 or 7700. Nonetheless, it is disk compatible with the 7500, 7700, 7770 and 7900. Disks prepared on the 7300 can be output on any one of these systems without altering or changing any commands. The reverse is also allowable: disks prepared on other members of the EditWriter Family can be output on the 7300. However, when preparing input for the 7300, only those fonts resident in the 7300 can be accessed.

For more specific operating instructions, refer to the EditWriter 7500 tab.

[12] The original EditWriter 7300 had 8 sizes on-line. However, newer models have recently been upgraded to include 12 sizes on-line like the standard EditWriter 7500.

7400

7400

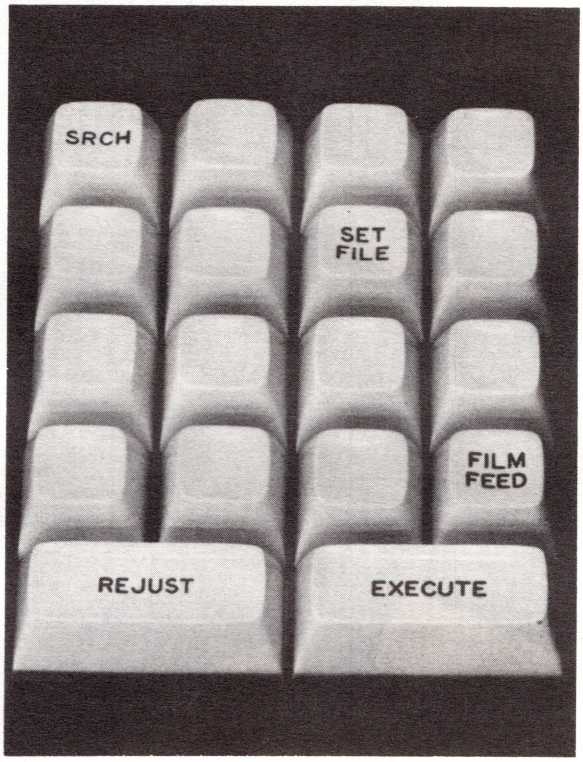
The EditWriter 7400 incorporates all of the features of the EditWriter 7500 with the exception of the disk drive. The floppy disk drive has been replaced by two empty bins. However, if the system is upgraded, a single or dual disk, as well as other EditWriter options, can be added. Also, all file management capabilities are resident in the system, so the keypad may be easily retrofitted at any time.

Copy Flow

As with the 7500, copy is typed on the 7400 keyboard and immediately displayed on the screen. Copy on the screen can be scrolled, edited and manipulated until it is sent to the photo unit.

Lower Right Keypad

The EditWriter 7400 keyboard (like the 7500 keyboard) is logically arranged into five separate task areas. The only difference between the two keyboards is the lower-right keypad. Because there isn't a permanent storage mechanism, there is no need for file management keys. Therefore, the lower-right keypad of the 7400 has many blank keytops, with only several dedicated keys.



Set File

The SET FILE key, one of the keys remaining in the lower-right keypad, is used to direct information from the screen of the 7400 directly to the photo unit for typesetting. The SET FILE function is used when a job has been completed, or when screen memory is full and will not accept additional input.

To typeset an entire job:

1. Strike LIMIT, SCRL UP to position the cursor at the bottom of the copy.
2. Strike SET FILE, EXECUTE. All copy is cleared from the screen and sent to the photo unit. The ACT message appears on the right side of the status line to indicate that the photo unit is actively processing copy. The take-up cassette and width cards must not be removed until the typesetting is complete and the ACT message disappears.

To typeset only a portion of the copy:

1. Place the cursor on the first character after the copy to be typeset.
2. Strike SET FILE, EXECUTE. All copy up to, but not including the cursor, will be sent to the photo unit for processing.

For more specific operating instructions, refer to the EditWriter 7500 tab. All of the 7500 sections, except those relating to file management, are applicable to the EditWriter 7400.

7100

7100

The EditWriter 7100 is simply a combination of the EditWriter 7300 and the EditWriter 7400 phototypesetters. It is a powerful direct-entry phototypesetter that incorporates all of the features of the EditWriter 7500, except it lacks disk storage and provides four styles of type rather than eight.

Since the 7100 lacks storage, the disk drives have been removed and replaced by two empty bins. Also, the keys in the File Management Keypad, normally used to store and retrieve information from the floppy disk, have been left blank and inoperable. However, since all file management capabilities are resident in the system, one or two disk drives can be added and the keypad retrofitted at any time.

Copy Flow

As in the 7500, copy is typed on the 7100 keyboard and immediately displayed on the screen. While on the screen, and until sent to the photo unit, the copy can be scrolled, edited and manipulated.

Lower Right Keypad

The EditWriter 7100 keyboard (like the 7500 keyboard) is logically arranged into five separate task areas. The only difference between the two keyboards is the lower-right keypad. Without the permanent storage mechanism, there is no need for file management keys. Therefore, the lower-right keypad of the 7100 has many blank keytops, with several dedicated keys. (Refer to the illustration of the lower-right keypad and the discussion of the SET FILE function on p. 146.)

Photo Unit

Like the 7500, the EditWriter 7100 is available in low- and high-range models.[13]

The photo unit of the 7100 can set 48 different size/style combinations on-line at a speed of 18 lines per minute. Like its predecessor, the 7500, it utilizes two filmstrips, each containing two styles. (The filmstrips for the 7100 are the same as those used in Compugraphic's CompuWriter 48.) Just as with the 7500, the top filmstrip is loaded in position 1-4, and the bottom one in position 5-8. The fonts, however, are located in positions 1, 2, 5 and 6 and are accessed by keying FONT 1, FONT 2, FONT 5, and FONT 6. Positions 3, 4, 7 and 8 are blank and cannot be accessed. If any of these fonts are called by mistake, the message "WRONG FONT" will appear on the message line of the screen.

For more specific operating instructions refer to the EditWriter 7500 tab.

[13] The original EditWriter 7100 had 8 sizes on-line. However, newer models have recently been upgraded to include 12 sizes on-line like the standard EditWriter 7500.

2750

2750

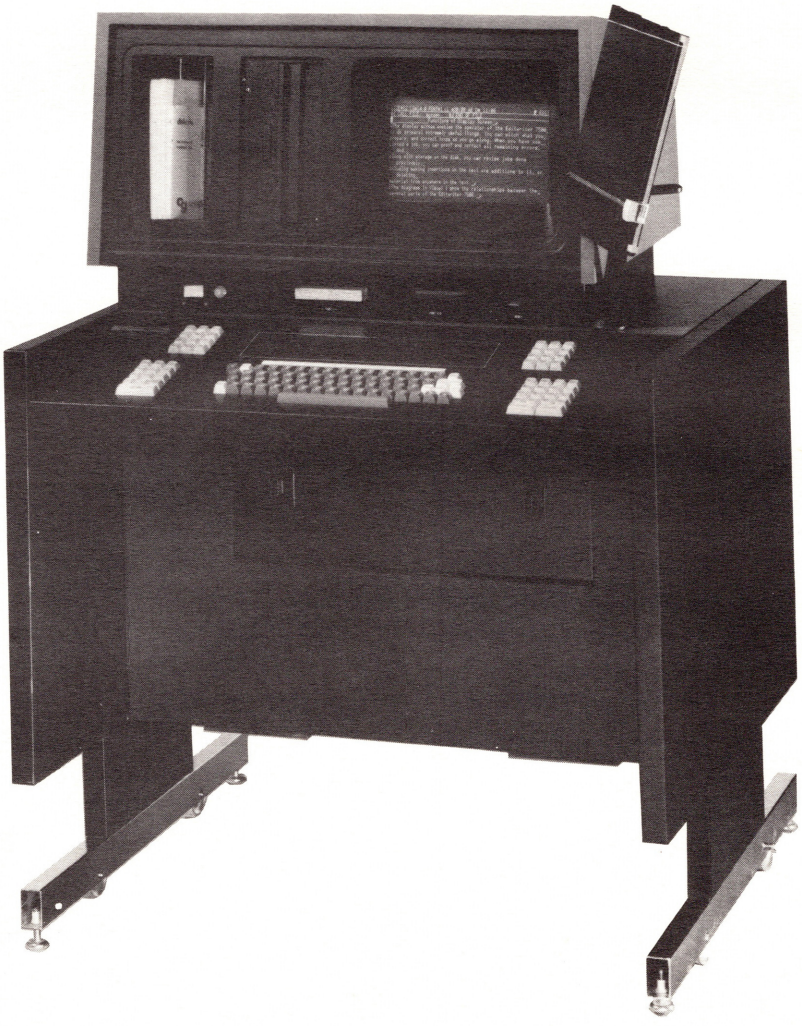
The EditWriter 2750 is an efficient off-line input and editing station that offers all of the features of the 7500 except for the setting of copy. It is capable of complete hyphenation and justification and can be used with the following EditWriter phototypesetters: the 7500, 7700, 7300, 7700 or 7770 II.[14]

The 2750 has the same screen and disk storage capabilities as the EditWriter 7500. However, because it does not have a photo unit, the keyboard lacks the keys used to direct copy to the output device. Thus the SET FILE and TYPESET keys, in the lower-right keypad, have been omitted. All other file management keys are identical to those on the EditWriter 7500.

Inputting parameters on the 2750 entails the same procedure as used on the 7500. With the 2750, however, any point size from 6 to 72 may be selected without restriction. This feature enables the 2750 to provide input for phototypesetters with any lens configuration. Once copy is prepared on the 2750 off-line keyboard (and stored), the disk can be inserted into the disk drive of any of the EditWriter phototypesetters mentioned above.

For more specific operating instructions refer to the EditWriter 7500 tab.

[14] If the 2750 is ordered for input to a 7770 II, a 2750 II must be specified. This enables the 2750 to be programmed in exactly the same manner as the 7770 II, thereby allowing it to access line lengths up to 70 picas as well as all ruling commands.



1750

1750

The EditWriter 1750 is a programmable, off-line keyboard compatible with all disk-based EditWriters. Copy is input on the 1750 in a non-counting mode and unjustified form. However, each file record, as it necessitates typesetting, can be rejustified and then output on any of the EditWriter photo units. Because all of the initialization instructions are entered on the 1750, very little operator intervention will be necessary as the copy is justified.

The 1750 is a table-top unit consisting of a keyboard, screen and floppy disk. It offers many of the same features as the EditWriter 7500. Aside from the obvious lack of a photo unit and some changes in the keyboard, the 1750 differs from the EditWriter 7500 in the following ways:

- No Hyphenation/Justification
- No "Replace Search" function
- No "Measure Depth" calculation
- The 1750's screen memory capacity is 3,000 characters, the screen memory of the EditWriter 7500 is 6,000 characters

Although there are some physical differences between the two systems, and several functions on the 1750 are accessed uniquely, the basic operation and performance of the 1750 and EditWriter 7500 are indeed similar. Therefore, to avoid unnecessary repetition, this section of the manual will only discuss those aspects and procedures of the 1750 that differ from the rest of the EditWriter Family.

Machine Components

Keyboard

Compare the keyboards of the 1750 and the 7500. Although many of the keys have been relocated, the 1750 only lacks three keys, REPL SEARCH, TYPESET and MEAS DEPTH. Also, several blank keytops (to be used with optional programs or future enhancements), have been included in the left and right keypads.

The main keyboard of the 1750 has a standard typewriter arrangement which has been expanded to include additional characters. Also, all line ending keys, fixed spaces, copy positioning and tab keys are located on the main keyboard.

There are five rows of keys on the 1750, as compared with four rows on the other EditWriters. The fifth row is made up of 18 "pre-programmed" function keys which are designed to facilitate keyboarding the most commonly used typographic functions. These functions are recorded on the 1750, but they do not have an effect on the copy until it is rejustified. For example, even if the Automatic Hyphenation program is on, word breaks will not show on the 1750 screen. The AUTO HYPH key is used to code copy for hyphenation on one of the other EditWriter systems. Therefore, when copy is rejustified on a 2750 or an EditWriter with typesetting capabilities, all word breaks will appear on the display screen.

In addition to these keys that are visible on the keyboard, 20 Pi characters can be accessed using the "UC PREC" or "LC PREC" keys, located on the extreme left side of the row of "pre-programmed" keys. Although these keytops appear somewhat different from the precedent keys on the 7500, they are utilized in the same way.

The left keypad (editing keys) has 12 keys which are used for editing and several additional keys (on the top row), FLASH ONLY, SPACE ONLY and INIT, which have been moved from other EditWriter keyboard locations. Also included is the CLEAR MEMORY key (at the base of the keypad). A blank keytop, or a key marked "BREAK", is located to the right of CLEAR MEMORY. The BREAK key is added to the keyboard if the 1750 will be acting as a receiving terminal during communications transfer.[15]

The right keypad (file management keys) is used to store and retrieve information from the disk. This keypad, as on the 7500, contains the EXECUTE key which is used in conjunction with the other keys to complete a command. It also includes several blank keytops, and perhaps a "RECV" key which (like the BREAK key) is used during communications transfer.

[15]If the 1750 is set up as a communications terminal, refer to the Options Section of this manual, the Intelligent Communications Interface (ICI) tab, or the appropriate Compugraphic WordCom Operator Training Manual.

Screen

The screen has a memory capacity of 3,000 characters or 200 lines (as compared with 6,000 characters on the other EditWriters). Fifteen lines can be displayed on the screen at one time. Two message lines appear automatically at the top of the screen when machine power is On and the 13 lines that follow display 13 of the possible 200 lines stored in screen memory. Each line displays a maximum of 64 characters. Text characters are displayed at full intensity and typesetting parameters and functions are displayed at half intensity. Thus, the 1750 copy display takes on the same appearance as the 7500 screen.

The Parameter Line is the first of the 15 lines on the screen. It is divided into two areas. On the EditWriter 7500, this line is used to display the initialization parameters. However, on the 1750, these parameters are not displayed, and, thus, the first 45 character positions on the Parameter Line will always remain blank.

Area 1: When the amount of copy input from the keyboard approaches the limit of the screen memory (3,000 characters of 200 lines), Area 1 will display a message to inform the operator of the remaining usable space in lines and characters. The message "L=XX, C=XXX" is activated when 25 lines or 250 characters are left in the screen memory. It will appear in the 46th character position on the Parameter Line.

Area 2: The last four character positions (Area 2) on the Parameter Line indicate either the INSERTor the EDIT mode.

EDIT is the normal mode for entering copy, or for editing. When the system is initialized, or when material is called to the screen for corrections, the EDIT message appears. In the EDIT (strikeover) mode, each character keyed replaces the character at the cursor position, whether it be an actual character, or in the case of new copy, a blank space. If a complete word will not fit at the end of the 64 character screen line, it will automatically be moved down to the next line. This is known as automatic word wrap.

The message INSERT indicates that the system is in the INSERT mode. The INSERT key is used to insert copy within the text. Striking any cursor or File Management key, except CNCL CHAR, will take the terminal out of the INSERT mode and restore the EDIT mode.

The Status Line is the second line on the screen. It, too, is divided into two areas. It displays all of the same messages as the 7500 Status Line, except for tab information. Also, because there is no photo unit, ACT is not indicated.

Area 3: Area 3 is a message area used to verify operator commands such as ENTER FILE, SAVE BLOCK, etc. These messages appear whenever the operator uses one of the "file management" keys from the right keypad, or the CLEAR MEMORY key on the edit keypad.

Area 4: Area 4 confirms any file management action and errors.

NOTE

Refer to Appendix C, System Messages (in this section), for a list of all 1750 system messages and the area in which each appears.

Standard Maintenance and Adjustments

Brightness/Contrast Controls

These display screen controls are located underneath the right rim of the blue screen cover. They are used to adjust the intensity of background and characters on the screen.

Filter

Filter cleaning should be done on a weekly basis, or more often if necessary.

- The filter is accessed by pulling up the bar lever below the blue cover on the back of the machine. Turn machine power Off and remove the filter by simply sliding it out.
- Vacuum clean the filter. Replace with new filter every six months, or more often if needed.
- To re-install the filter, push it back into its holder and press down the bar lever.

Fuses

The fuse panel is accessed by removing the blue cover from the 1750. The fuses are located in the back, directly above the fan and filter. Fuse replacement should only be attempted with power to the machine Off. All replacement fuses should be identical to those originally installed.

Programming the 1750

The 1750 is a disk-programmable unit. Each 1750 comes complete with a Master Program Disk (MPD) and a User Program Disk (UPD). The MPD is only used to create back-up UPD's, after which it is stored for safekeeping. It is the UPD that is loaded into the system on a daily basis, whenever power to the machine is turned On. Although similar in appearance to the work disks used to store jobs, the UPD is "write protected".[16] To ensure the program's integrity, no extraneous data can be recorded on the program disk.

Start-up Procedures

1. Power to the 1750 is controlled by the white switch located to the right of the display screen. To activate power, flip the switch to the On position. (Magnetic disks must not be inserted until after power has been supplied to the system.)
2. Insert the 1750 User Program Disk into the disk transport and secure the door mechanism.
3. Lift up the LOAD/RESET switch (located to the left of the On/Off switch) and release it. The program will load in just a few seconds, and will cause the program revision level to be displayed in the Status Line.
4. Remove the program disk. Insert a work disk. The system is now primed for inputting or editing operations.

Remember: Before a work disk can be used for the first time, it must be initialized. Refer to the 7500 tab, File Management, Initializing/Erasing A Disk, to review the procedure.

NOTE

Refer to Appendix B, Creating User Program Disks (in this section), for the step-by-step procedure to create standard UPD's from the Master Program Disk.

[16] A "write-protected" disk is one which does *not* have a metallic sticker covering the notch at the bottom of the disk. Valuable disks, such as program disks, should be "write protected" so that they cannot be accidentally erased. Work disks have "write permit" tabs (or metallic stickers) that cover the cut-out area at the bottom of the disk. This tab permits the disk to record or change data.

Initialization

Initialization is the procedure used to begin a job. This process clears all old information from the screen and prepares the system for the inputting of new instructions—point size, line space, font numbers, line length and line ending mode. (Refer to the 7500 tab, How To Begin, for a detailed discussion of initializing the EditWriter.)

Because the 1750 is a non-counting terminal, initialization is simulated and all numerics representing size, line space, etc., appear on the screen in half intensity. During the Initialize sequence, parameter entries must be made in the unshift mode. If an invalid entry occurs during initializing, (such as the input of a letter instead of a numeric, or a line space value not ending in 0 or 5), the character (or numeric) will be displayed on the screen in full rather than half intensity. An audio tone will signal the error and the initialization sequence will stop temporarily. Correcting the error with the CNCL CHAR key will restore the sequence and deactivate the audio tone. Invalid point sizes (i.e., size 99), fonts (i.e., font 9) and line lengths (i.e., 9200) will not be detected by the 1750.

During the 1750 initialization sequence, the following conditions are automatically established for the EditWriter 2750, 7300, 7500, 7700 or 7770:

- Letterspace "On"
- Hyphenation Program "On"
- Character Compensation "Off"
- Space Only "Off"

All of the four conditions named above may be turned "On" or "Off" as needed while keyboarding on the 1750. (The following section, Typographic Refinements/Functions will provide a detailed explanation of the use of these functions.)

After initialization is complete, the operator can go back and make additional parameter changes by moving the cursor and overstriking any of the entries. These corrections will be permanently displayed in full intensity on the 1750 screen. When a character is in full intensity, the 1750 program cannot detect any invalid entries. However, during justification on a counting EditWriter, character intensity will be corrected and errors will be signaled.

Before entering copy on the 1750, the operator must have the following information:

1. The font strips which will be used in the EditWriter photo unit and what positions (or tracks) each will occupy.
2. The keyboard layout associated with each font. (The alphabet and punctuation are located in the same positions on all keyboard layouts; however, special symbols and pi characters may be present on one layout and not on another.)

System Reset

The RESET Switch is located immediately to the left of the Power On/Off Switch. It is keyed following power up, to correct a system error in the machine, or to clear copy from the screen.

Parameter Changes

Although point size, line space, font and line length are established during the initialization procedure, it may be necessary to change these parameters within the job. Four keys, located in the upper right of the main keyboard, are provided for these changes. Altering the parameters on the 1750 is no different from changing them on any other EditWriter. However, the operator must always keep the specifications of the output EditWriter in mind. For instance, the point size selected must match the lens configuration of the photo unit. Otherwise, when the disk is placed in the output terminal and rejustified, an error message "WRONG POINT SIZE" will appear on the Status Line. Also, the digit entered for Font must correspond to the font position of the filmstrips of the output device.

Typographic Refinements/Functions

Most of the typographic functions on the EditWriter 1750 can be accessed with keystroke sequences and procedures that are standard for all models of the EditWriter Family. In fact, except for TAB/EL (End line) and SPACE ONLY, all quadding, horizontal and vertical spacing, insert character, character alignment, tabbing functions, etc., are accessed in the same manner as they are on the 7500.[17] The only difference that the 1750 operator will incur is the location of the keytops, most of which will be found in the top row of "pre-programmed" keys.

The functions and/or refinements described below necessitate operating procedures that are unique to the 1750. These functions are known as "shift conscious". Their "On" or "Off" status depends on whether the keyboard is in the shift or unshift position. (Note the location of the SHIFT key on the 1750 keyboard.) Pressing the appropriate key in the unshift mode turns the function On, and pressing the key in the shift mode turns the function Off.

Letterspacing

When copy is justified on a counting EditWriter, automatic letterspacing is activated (having been established during initialization on the 1750). Should the 1750 operator wish to inhibit letterspacing, the function may be deactivated by depressing SHIFT, LTR SPACE. To return to letterspacing On, key LTR SPACE again, this time in the unshift mode. As on the 7500, letterspace On produces the letters $\overset{L}{O}$ on the screen, and letterspace Off, $\overset{L}{X}$. When the copy is justified on a counting keyboard, the same screen symbols will be displayed automatically.

Hyphenation

Hyphenation, based on a series of logic rules, is also activated during the initialization process. However, by striking SHIFT, AUTO HYPH, the 1750 operator can turn this function Off. The Off condition is indicated by the letters $\overset{H}{X}$ on the screen. To restore the automatic hyphenation program, key AUTO HYPH in the unshift mode, $\overset{H}{O}$ will appear on the 1750 screen.

[17]Remember that the 1750 keyboard allows the operator to enter these functions. However, because the 1750 terminal is non-counting and does not hyphenate, justify or have a photo unit, these conditions will not be visible to the operator until the copy is rejustified and/or output on another EditWriter system.

Character Compensation

Just as on the 7500, activation of character compensation is a two-step procedure. First, a value is established by striking CHAR COMP SET followed by two digits (from 01-99). Then the program must be turned On by striking the CHAR COMP key while in the unshift mode. (Remember that the Character Compensation condition is Off as established during initialization.) The Character Compensation On condition is indicated by the letters $\overset{C}{O}$ on the 1750 screen. Strike SHIFT, CHAR COMP to turn the function Off. The letters $\overset{C}{X}$ appear on the screen.

Space Only

A Space Only Off condition is automatically established during initialization. To turn the non-photo condition On, depress SPACE ONLY (in the unshift mode). $\overset{S}{O}$ will appear on the 1750 screen. The characters typed immediately following the depression of the key will *not* be photographed, but the space they would have occupied on the line measure will be left blank as if they had. To turn the Space Only condition Off, and begin photographing characters once again, depress SHIFT, SPACE ONLY. The Off condition will be indicated by the letters $\overset{S}{X}$.

Tab End Line

On the EditWriter 1750, the TAB/EL key is also shift conscious. As on the 7500, TAB/EL (End line) has two separate functions, depending upon the operating mode in effect. In the tab mode (explained in the 7500 section, Tabular Composition) TAB/EL advances the carriage to the next tab column. However, in the standard operating mode, it is a line ending command that does not activate line space. When SHIFT, TAB/EL is keyed, the tab mode is generated and $\overset{T}{B}$ appears on the screen line. To generate the End Line code, indicated by $\overset{E}{L}$, key TAB/EL in the unshift mode.

Automatic Line Endings

The automatic line ending is the standard method for operating the EditWriter 1750. It is activated automatically during the initialize sequence when the operator depresses the space bar immediately after entering the four basic typesetting parameters. The letters "AE" appear following the line length entry in the Parameter Line, indicating that the automatic line ending mode is in effect. Since the 1750 is a non-counting keyboard, no line ending decisions will be indicated on the screen while keyboarding copy. However, the automatic line ending code will allow the counting EditWriter to rejustify the job before it is ready to be typeset. At that time all line ending decisions and screen symbols will be visible on the display screen.

NOTE

For a more detailed discussion of all of these functions, refer to the EditWriter 7500 tab.

File Management

All EditWriters with storage capabilities have the same file management routines. However, the screen memory (6,000 characters) of the 2750, 7300, 7500, 7700 and 7770 is larger than that of the 1750 (3,000 characters). Therefore, if copy is stored on a disk at a counting keyboard and brought to the 1750 for editing, a memory full condition could occur before the entire content of that file is read from the disk onto the screen. The operator is therefore forced to break the file into at least two records. If this situation occurs, follow the procedure below. (This procedure is similar to the Insert File procedure described in the 7500 tab, Advanced File Management.)

To call information (prepared on another EditWriter) onto the screen of the 1750:

1. Strike CALL FILE, type the file name and strike EXECUTE to bring the first record of the job onto the 1750 screen.
2. When the Memory Full message appears, the 1750 will stop reading from the disk. Move the cursor up to a logical division point, preferably following the end of a paragraph. (It is important to leave enough room within the screen memory for editing and any insertions that may be necessary.)
3. Strike INS FILE followed by EXECUTE. All copy, up to and including the cursor, will be entered as a new record immediately preceding the original. The remainder of text is still intact at this point.
4. Strike CALL FILE/EXECUTE. Do not enter the file name. The remaining copy from the original file will continue to read onto the screen.
5. If at this point the Status Line says "END OF FILE," strike REPL FILE followed by EXECUTE. The job has now been stored on the disk in a manageable form for editing purposes on the 1750. If there are still more records to the file, continue with INS FILE, EXECUTE.
6. If REPL FILE/EXECUTE are keyed before the end of the original file or record appears on the screen, the message "UNDEFINED COMMAND" will be displayed in the Status Line. This protects copy not yet accessed from the original job.

NOTE

INS FILE may be used repeatedly within the same file record to break it into as many smaller records as necessary. REPL FILE, EXECUTE must be used to store the last record onto the disk. If not, the original file record(s) will remain on the disk unaltered, immediately following the new records just created.

Tabular Composition

The EditWriter has a versatile program for tabular composition. Three types of tabs, typewriter tabs, floating tabs and automatic tabs, are available for use. The 1750 is equipped with all typographic command keys necessary to activate the tab programs of the other EditWriters. However, the 1750 is a non-counting keyboard, and there is no way the operator will know if an OVERSET condition exists within a tab field.

It is suggested that any tab work required on the 1750 be calculated on the other EditWriters if there is any question of copyfit.

Points to remember when working with tabs:

1. Each tab is a miniature line length in which all the other typographic functions of the machine can be used.
2. The 1750 screen does not display the current tab parameters in use on the Status Line during keyboarding.
3. When setting up a tab field, only the Tab Set (TB=) code will appear in half intensity. The tab number, indent, length and quadding code will appear in full intensity until the job is justified on one of the other EditWriters.

Tab End Line

In the tab mode, TAB/EL advances the carriage to the next tab column. To generate this tab command, key SHIFT, TAB/EL; $^{T}_{B}$ appears on the screen line.

NOTE

A complete explanation of the different tab programs and their use can be found in the 7500 section, Tabular Composition.

APPENDIX A—Specifications: EditWriter 1750

CONFIGURATION: Standalone system with keyboard, video display terminal and computer-managed storage/retrieval.

SYSTEM FUNCTIONS

Input: Direct keyboard with control coding for the following: Justification/Hyphenation, Line Ending Decisions, Line Length, Type Style, Line Space (Leading), Tabbing, Word Spacing, Letter-spacing, Mortising, (Kerning), Character Compensation, Reverse Leading, Quadding, Ragged Composition.

Editing: Insert and replace; delete by character, line, or paragraph; text block moving capability.

Searching: Automatic cursor search by alpha or numeric combinations of up to 8 characters.

KEYBOARD

Input Keyboard: Secretarial shift keyboard—69 keys plus typographic commands.

Functional Keypads: Editing keypad, File Management keypad.

VISUAL DISPLAY TERMINAL

Screen Size: 12-inch (diagonal) CRT for distortion-free display.

Character Size: Approximately 18 point (formatting instructions at half intensity).

Character Complement: 256 upper- and lower-case alphanumerics and function symbols.

Screen Capacity: 15 lines shown, one "Parameter Line," one "Status Line," 13 copy lines out of a scrolling memory of up to 200 lines (3,000 characters).

Scrolling: Up and down through 3,000 characters.

Cursor: Character-size rectangle of reversed video.

Cursor Control: Unrestricted movement up, down, right or left (single step or continuous). Home (automatic return to upper-left corner of screen).

COMPUTER-MANAGED STORAGE/RETRIEVAL

Storage: Random access floppy disk, 128 variable-length files per disk, 300,000 characters.

Filing System: Each file is indexed by name of up to eight alpha or numeric characters.

Index: File names on each disk may be displayed on screen by operator command.

Format Storage: More than 100 formats can be stored.

PHYSICAL DATA

Dimensions: 26″ wide, 28″ deep, 17″ high.

Weight: 125 lbs.

Electrical: 105-125 VAC; 60 Hz; 7 amps (3-prong grounded plug with separate electrical line from junction box required).

APPENDIX B—Creating User Program Disks

OPERATOR ACTION	SCREEN RESPONSE/MESSAGE
1. Insert the 1750 Master Program Disk (MPD). Press LOAD.	"EW 1750 SYSGEN REV X."[18]
2. Type R01.	READ PART: 01
Press EXECUTE	ACT; wait until COMP appears
Remove Master Disk. Insert another disk. Press ERASE DISK, EXECUTE.	ACT; wait until COMP appears
3. Type W00	WRITE PART: 00 START
Type 0960	END
Type 1750sys	
Type 4FFF	EXEC
Type 0960	NAME
Press EXECUTE	ACT; wait until COMP appears
4. Remove disk. For extra copies, insert another disk and proceed as follows:	
Press ERASE DISK, EXECUTE	ACT; wait until COMP appears
Type W00 'spacebar' 'spacebar' 'spacebar' '1750sys'.	
Press EXECUTE	ACT; wait until COMP appears

NOTE

If a typing error is made in Steps 2 or 3, no corrections can be made. Press CNCL CHAR once and repeat the entire step.

Throughout the entire procedure, 0 stands for the figure 'zero'. Operator entries appear in caps.

[18] "X" represents the program revision level, i.e., REVA, B, C, D or E.

APPENDIX C—System Messages

The Status and Parameter Lines of the 1750 display a series of messages which communicate to the operator both status and system messages. (To differentiate between a status and system function message on the 1750 screen: system function messages are identifed by a colon after the function title, followed by the cursor positioned two spaces to the right, i.e., CALL FILE: is a function message and EDIT, a status message.)

A list of all System Messages and the area in which each appears follows. (Many of the messages will be familiar to you because they also appear on the other EditWriters. Refer to the Appendices and Index tab in the 7500 section, Appendix D, Error Messages and Appendix E, Screen Messages.)

Area 1:

L=XX, C=XXX

Indicates that the screen buffer memory is becoming full. This warning message is displayed when either the lines remaining count is less than or equal to 25, or when there is room for only 250 more characters. The line count remaining and character count remaining message will be displayed and updated until the memory is emptied to the point where there are more than 25 lines left and there is room for more than 250 characters.

As the lines/characters remaining count becomes full, the message becomes "FULL,C=XXX", or "L=XX, FULL". Further data entry is prohibited until some or all of the text is entered onto the disk or cleared from the screen memory.

Area 2:

EDIT
Indicates that the system is in the normal mode for entering copy, or for editing.

INSERT
Indicates the system is in the Insert mode.

Area 3:

CALL FILE:
Is used to call data from the disk to the screen. The operator must type a file name of one to eight characters, and EXECUTE. This calls the first record of the named file to the screen. For all succeeding records in the file, CALL FILE and EXECUTE, or simply EXECUTE, are used without repeating the file name. The name of the last file addressed will appear in quotes after this message.

CALL INDEX
Indicates that this function has been keyed. When followed by EXECUTE an Index of all jobs stored on the disk appears on the screen.

CLEAR MEMORY
Indicates that this function has been keyed. When followed by EXECUTE, the screen memory is cleared of all data, and the character count and line count are reinitialized. This operation does not affect any data stored on the disk.

DELETE FILE:
If an entire file or named "saved" block is to be removed from the disk, the name of the file followed by EXECUTE completes the operation. If a single record appearing on the screen is to be removed from the disk, EXECUTE alone will complete the operation. The file name will appear in quotes following the message, however, the record will remain on the screen.

ENTER FILE:
Is used to transfer data from the screen memory to the disk. The operator must type a file name of one to eight characters, and EXECUTE. This creates the file on the disk and enters the first record. For all succeeding records in the file, ENTER FILE and EXECUTE, or simply EXECUTE, are used without repeating the file name, which will appear in quotes following the message.

ERASE DISK
Indicates the ERASE key has been depressed. A second depression of ERASE and EXECUTE completes the erase procedure.

INDEX
When CALL INDEX and EXECUTE are keyed INDEX appears in the message area and the percent of disk space used is given as "## PERCENT USED". The names of files stored on the disk appear on the screen in six columns. If more than 13 lines of the display have been used (this occurs when more than 78 file names have been assigned), SCRL UP will display the file names which have not appeared on the screen.

INSERT BLOCK:
Indicates the operator has keyed that function. He must now enter the file name for the first record and hit EXECUTE or simply hit EXECUTE to access successive records. In the latter case, the file name will not have to be typed again. It will appear in quotes following the message. The block is inserted before the cursor.

INSERT FILE
This function serves two puposes:

1) When data is to be inserted between records in a file rather than at the end of the file, the record which will eventually follow the insertion is called out onto the screen. CLEAR MEMORY and EXECUTE removes all data from the screen. The insertion is entered onto the screen from the keyboard or by using the INS BLOCK routine. INS FILE, EXECUTE completes the operation.

2) When the memory becomes full in the process of editing or inserting blocks, INS FILE, EXECUTE is keyed. This command sequence is used to put the first portion of the data onto the disk before the copy is lost.

MEMORY CHECK
Flashes on the screen when power is turned On, indicating that the program disk should be inserted. To read the program information into the 1750, lift up the LOAD/RESET switch (located to the left of the Power Switch).

REPLACE FILE
When copy has been called onto the screen from the disk and altered in any way, it ordinarily will be returned to the disk as an updated file. The REPL FILE key is used for this purpose. This key displays the function message with the addressed file name in quotes. Striking the EXECUTE key will complete the operation.

REV. X
After the program has been loaded, this message appears. The letter following REV. indicates the level of the program revision, i.e. A,B,C,D, or E.

SAVE BLOCK:
Appears when that function has been keyed and is used to transfer data from the screen memory to the disk. The operator must key SAVE BLOCK, type a file name of one to eight characters, and EXECUTE to save the first record of the block. For all succeeding records, SAVE BLOCK and EXECUTE are keyed without repeating the file name. The data transferred (or saved in the block) is deleted from the screen.

SEARCH KEY:
Indicates that SEARCH has been keyed. The operator must now enter the character or character combination which needs to be searched, followed by EXECUTE. After the first use of the search function, the search may be resumed throughout the job by simply hitting EXECUTE.

UNDEFINED COMMAND
Indicates 'EXECUTE' has been hit without preceding it by an ENTER FILE, CALL FILE or SEARCH command. This message also appears if any of the unused or blank keyboard keys is struck, or if the CNCL CHAR key is used to cancel beyond the first character of a file name following a function message.

WRONG DISK
Appears when a data disk is in the disk drive when the LOAD switch is pressed. If a program is to be loaded, remove the undamaged data disk and insert the program disk. Otherwise, simply press down to RESET the 1750 and resume operations with the current program.

Area 4:

COMPLETED
Appears after the system has completed performing a request function.

DISK FULL
This message appears when all memory locations on the disk are full or all 128 positions in the Index are used. No further input is possible. The disk may continue to be used to output data which has been stored on it. The Index should be checked and any obsolete files or saved blocks should be deleted. If no files can be deleted, a fresh disk must be inserted.

DISK NOT OPEN
If the recording disk is replaced in the middle of a function (before EXECUTE), or the disk has not been initialized (other than when ERASE is attempted), this message will appear.

DISK READ ERROR
Indicates selected data read from disk may be in error.

END OF BLOCKS
When using the INS BLOCK function to recall data onto the screen from the disk, this indicates that the data displayed is the final record of the secondary "block" file.

END OF FILE
When recalling data onto the screen from the disk, this indicates that the data displayed is the final entry in the file.

FILE NAME IN USE
Identical names cannot be used for files. If a name has been used once and is typed again after ENTER FILE, this message will appear. ENTER FILE and a different file name must be input.

FILE NOT OPEN
This message will appear if the system is not addressed to a file and CALL FILE, DEL FILE, or EXECUTE are keyed without providing a file name.

KEY NOT FOUND
This message occurs during the search routine. It indicates that the end of the record has been reached and there are no more occurrences of the search object.

MEMORY FULL

Appears during a disk input operation (CALL FILE or INS BLOCK) when there is not enough room left in the screen memory to accept another disk sector's worth of data (128 characters). In order to guarantee that 128 characters can be displayed, there must be at least four lines or 140 characters left in the screen buffer. This allows for possible indents and end line codes. When this message is encountered, further disk input operations are prohibited until some or all of the text is cleared from the screen memory. Note that although INS BLOCK is not allowed, characters may still be entered from the keyboard until a FULL condition is reached.

NO DISK

This message indicates that a disk is not present in the disk drive or that the disk has not been properly inserted. This must be rectified before proceeding.

NO SUCH FILE

This message appears when CALL FILE, DEL FILE or INS BLOCK calls for a file which does not appear in the Index.

##PERCENT USED

When the Index has been called to the screen with CALL INDEX, EXECUTE, this message appears, indicating what percentage of the disk character capacity has been used.

APPENDIX D—Keyboard/Screen Comparison of Typographic Functions

The top row of white keys on the main keyboard of the 1750 are those most commonly used for typographic functions. All functions recorded by the 1750 are passed on to the EditWriter 2750, 7300, 7500, 7700 or 7770. With the exception of the 1750's initialization sequence, in which all command codes (and digits necessary to complete them) are viewed in half-intensity, all typographic commands used will appear on the screen in the following manner:

The striking of any typographic command or function will produce the half-intensity code associated with it. However, if any digits or letters are necessary to complete the command, they will appear in full intensity until rejustified by an EditWriter with a counting keyboard.

A list of typographic commands follows. Characters and numbers set in light face signify half-intensity characters on the screen. Characters and numbers in bold face signify full-intensity characters on the screen.

Typographic Command	Screen Symbol	Completed Command	When Justified On The 2750, 7300, 7500, 7700 or 7770
CHARACTER COMPENSATION SET	C/C=	C/C= **09**	C/C= 09
TAB SET	T/B=	T/B= **100001500c**	T/B= 100001500C
CALL TAB	C/T	C/T**1**	C/T1
AUTOMATIC TAB	A/T	A/T**1**	A/T1
PREC/SPACEBAND	S/B=	S/B= **1442**	S/B= 1442
LINE LENGTH	L/L=	L/L= **1500**	L/L= 1500
FONT	F/T=	F/T= **1**	F/T= 1
LINE SPACE	L/S=	L/S= **120**	L/S= 120
SIZE	S/Z=	S/Z= **14**	S/Z= 14

EDITWRITER II

EDITWRITER II

The EditWriter II differs from the standard EditWriter system only in the method of storing the system's Operating Program. On standard EditWriters, the Operating Program is permanently stored in "Read Only Memory" or ROM, enabling the system to read from the memory, but inhibiting changing its contents or writing into it. However, the Operating Program for the EditWriter II is loaded from a User Program Disk, and stored in "Random Access Memory" or RAM. With Random Access Memory, data can be written into the memory and read from it as well. Since the EditWriter II is software-based, the operator can load a single disk with several operating programs at one time. Simply by changing the disk and perhaps some hardware, the EditWriter II can be upgraded to support future options or enhancements.

Any of these standard EditWriter models can be upgraded to an EditWriter II or purchased as a Series II system.

- 7300
- 7500
- 7700
- 7770[19]
- 2750

Series II EditWriters are compatible with all EditWriter options. However, the standard EditWriter can only accommodate the following ROM-based options:[20]

- Intelligent Communications Interface (ICI)
- Multi-Hyphenation (MHO)
- AutoKern
- Dual Disk
- Multiple Column Positioning (MCPO)

Each EditWriter II installation or upgrade (except the 2750 II) requires an additional photo unit program board, a System Generator Disk (SYSGEN), and a Master Program Disk (MPD) configured to match the keyboard layout, lens set and options resident on the EditWriter. Both the SYSGEN and MPD disks will be used to create the User Program Disk (UPD). (See "Creating a User Program Disk" on the following page.) Subsequently, they should be safely stored—protected from dirt and magnetic fields when not being used.

NOTE

The external features of the standard EditWriter and the EditWriter II are identical, other than the Roman number "II" appended to the nameplate of the Series II system.

[19]The 7770 is available only as an EditWriter II.

[20]The options that require the use of an EditWriter II are: Printer, Label Printer, Preview, Ruling (ERO), Mini Multi-Hyphenation (MHO), Exception Dictionary, and EditWriter/8600 Emulator.

Creating a User Program Disk

Upon completion of the EditWriter II installation, the operator must create a User Program Disk (UPD) which represents a duplicate of the Master Program Disk's Operating Program. This UPD must be loaded into the system daily following initial power up, and must be reloaded if the system power is turned off.

It is recommended that at least two copies of the UPD be maintained at all times. One should be kept at the EditWriter, and the other should be stored in a safe, but readily accessible place, in the event that it is needed.

The following procedure will allow the EditWriter II operator to create a User Program Disk (UPD) from the Master Program Disk (MPD) and the System Generator Disk (SYSGEN). This process is also applicable to all EditWriter II option programs (described in the Option section of this manual) with the exception of the Mini Multi-Hyphenation Option (MHO). Refer to the MHO tab for specific instructions.

NOTE

Before you begin, make sure that the SYSGEN and MPD are write protected, by removing the tape covering the notch at the edge of the disks. This will prevent you from accidentally writing data over the pre-stored program information.

In the procedure, "0" denotes the numeral zero.

OPERATOR ACTION	SYSTEM RESPONSE
1. Place the SYSGEN in the disk drive (the primary drive on the dual disk systems).	
2. Press RESET.	"EW SYSGEN TYPE A REV B 8.78."[21]
3. Remove SYSGEN disk from the drive and insert the MPD.	
4. Type R	"READ PART:."
5. Type 00	"READ PART: 00."
6. Press EXECUTE	"ACT" 10-second delay then "COMP."
7. Remove the MPD from the disk drive. Store both the SYSGEN and MPD in a safe place.	

[21] The REV letter will change according to the revision update, i.e. REV C, REV D OR REV E.

OPERATOR ACTION	SYSTEM RESPONSE
8. Place a non-write protected (tape covering notch) blank disk in the disk drive.	
9. Press ERASE DISK	"ERASE DISK"
10. Press EXECUTE	"ACT" 10-second delay then "COMP."
11. Type W	"WRITE PART:."
12. Type 00	"START:."
13. Type 0000	"END:."
14. Type BFFF	"EXEC:."
15. Type 0000	"NAME:."
16. Type a name of up to seven alphanumeric characters.	
17. Press EXECUTE	"ACT" one-minute delay then "COMP."
18. When the display shows the "COMP" message, remove the disk from the disk drive. Write protect the disk by removing the tape covering the notch at the edge of the disk. Mark the label of the disk to identify it as an EditWriter II UPD.	

If a keyboarding error is made, such as accidentally striking an incorrect number or letter, the error can be corrected by using the CNCL CHAR key. The system will display "FUNCTION:" on the message line, and several steps of the procedure must be repeated as follows:

If an error is made in step 4 or 5, depress the CNCL CHAR key and restart the procedure at step 4.

If an error is made in steps 11-16, depress the CNCL CHAR key and restart the procedure at step 11.

NOTE

Additional copies of the UPD can be made at this time by repeating Steps 8 through 18.

Master Program Disk Messages

When creating a User Program Disk (UPD), various responses are displayed on the EditWriter screen. These messages, unique to this process, are displayed on a single message line. The messages occur as follows:

ACT	FUNCTION
COMP	NAME:
END:	READ PART:
EW SYSGEN TYPE A REV B 8.78	START:
EXEC:	WRITE PART:

The lines below show the positioning of the messages as they appear on the message line.

```
EW SYSGEN TYPE A REV B 8.78
READ PART: 00                                                    ACT
WRITE PART: 00   START: 0000   END: BFFF   EXEC: 0000   NAME: EWIIUPD   COMP
FUNCTION
```

Program Loading

Powering up the EditWriter II requires turning the system on and loading the operating program from the User Program Disk. The system will not function and the CRT display screen will remain blank until the program has been loaded.

To load the program:

1. Insert the UPD into the disk drive (primary drive on dual disk systems) and close the door of the drive.
2. Depress the System RESET Switch.
   You will hear the disk drive activate; however, the CRT display will remain blank for approximately 15 seconds while the system performs a memory test and loads the operating program into memory. When the program loading has been completed the CRT will display the two System Message lines.
3. Remove the UPD from the disk drive; return it to its protective jacket and keep it stored near the EditWriter.
4. The EditWriter is now ready for operation. Insert the job disk. Before performing any typesetting functions, CALL INDEX, EXECUTE. This step must be part of the procedure, assuring the system that the program disk has been removed and a job disk has been inserted.

Initializing/Erasing a Disk

With the disk in the drive:

1. CALL INDEX, EXECUTE.
2. If the Index appears on the screen you may begin a new job (key INIT, EXECUTE), or call one of the file names to the screen for revision or editing.
3. If the Index does not appear on the screen and the disk light stays on, remove the disk from the drive and hit RESET. (This activity is simply a variation of the Initialize/Erase procedure for the standard EditWriter, see p. 35.)
4. When the screen displays two message lines (after Reset), return the disk to the drive and hit ERASE, ERASE, EXECUTE.
5. To verify that the "Erase Disk" procedure was performed strike CALL INDEX, EXECUTE. The Index should now appear on the screen with a "0 PERCENT USED" message.
6. At this time the operator may begin a new job.

Error Messages

If the system detects an error in the memory space (in which the Operating Program is loaded), the message "MEM FAULT ADDR:XXXX GOOD:XX BAD:XX" will be displayed on the CRT. (The letter "X" represents an alphanumeric character.)

ADDR:XXXX = Four-digit address of the memory fault.
For example, ADDR:7F1A.
GOOD:XX = Two-digit data which should be in this address.
For example, GOOD:55.
BAD:XX = Two-digit data actually in fault address.
For example, BAD:02.

If a memory fault occurs, record the message display. This information will aid Service in isolating the fault.

After 20 seconds, if the CRT screen does not display the two System Message lines and the Memory Fault Message has not been displayed, recheck to insure that the disk drive contains a properly loaded UPD. If the program still will not load successfully, contact your local Compugraphic Service Office for further assistance.

System Reset Conditions

RESET is located on the front control panel of the EditWriter. It has several different functions, depending on the disk currently in the disk drive.

With the User Program Disk:

Activating the system RESET button while the UPD is seated in the disk drive will result in the program loading.

With a job disk:

Pressing the system RESET button with a job disk in the disk drive clears copy from the screen and halts the typesetting process in the photo unit. RESET is also used to correct a system error in the machine or prior to loading filmstrips. (This use of system RESET serves the same purpose on the standard EditWriter.)

With no disk:

A system RESET accessed with an empty disk drive initializes the EditWriter by restoring the program information. If, however, the power has been turned off, the UPD will have to be reloaded.

7770

7770

The EditWriter 7770 has all of the outstanding features and benefits of the 7700, plus the following standard features:

- 70-pica line measure
- Automatic ruling option
- Multiple Column Positioning
- Series II programmability

The EditWriter 7770 looks and operates just like the EditWriter 7700. It has the same keyboard, screen and disk, sets type at the same speed and uses the same filmstrips. However, in order to typeset on a 70-pica line measure, the photo unit compartment and the entire paper assembly have been widened to accommodate 12-inch paper.

Line Measure

Line measures up to 70 picas may be specified for the EditWriter 7770. Copy may be set to the maximum (70 pica) measure with the exception of large sizes in type styles such as script or italic. Large point size copy set to the maximum measure in these or similar styles may result in the clipping of the last character in the line. If the 70 pica maximum line measure is exceeded the message "LENGTH EXCEEDED T" will appear in the message line.

Photographic Materials

Like the 7700, the 7770 is compatible with RC and Type S photographic papers, in widths of 2, 3, 4, 6, 8 or 12 inches. Kodak SO-050 high-speed film can be used too; however, the 7770 will not set type on DuroGraphic paper or PermaGraphic paper or film.

Jobs set on the 7770 that utilize MCPO (thus the Ruling Option) must be photographed on 12-inch paper or film. Other jobs can be typeset on any of the standard widths. Also, jobs requiring very extensive MCPO, such as complex ruled forms, should not be run on film at all. The teeth of the sprocket wheel used to guide the paper can cut through the film and cause it to jam.

Typesetting Output

The EditWriter 7770 has a dual speed font drum. The speed of the font drum is controlled by a switch located in the font compartment. The high speed mode is the normal operating mode of the 7770 font drum. Low speed is available when maximum output quality must be obtained.

Duplicate font mode (as explained in the 7700 tab) cannot be used on the 7770. Thus, the maximum speed of the machine is 50, 8-point, 11-pica lines-per-minute.

MCPO

MCPO is standard on the EditWriter 7770. When it is accessed, 12-inch paper or film is required. For specific instructions on using the reverse lead program, refer to the Options section of this manual.

Ruling Option

The EditWriter Ruling Option is standard on the EditWriter 7770. With the entry of a few simple keystrokes, it allows the operator to typeset horizontal and vertical rules, boxes and matrices. See the Options section of this manual for a detailed discussion of the Ruling Option. Just keep in mind that with the 7770, there is no longer a 45-pica line length restriction. All graphics can be drawn on a 70-pica measure.

Series II Programmability

The 7770 is available only as an EditWriter II. Therefore, in order for it to operate, the system must be programmed. Refer to the EditWriter II tab for a detailed description of Creating a User Program Disk and Program Loading.

Compatibility

The 7770 is compatible with all members of the EditWriter Family and will output disks prepared on other EditWriter models. Disks prepared on the 7770 can only be output on another EditWriter model if the line measure used in a job is equal to or less than 45 picas—the maximum line length capacity on all models except the 7770.

If an EditWriter 1750 is required for off-line input, there are no special programs or software that must be specified. However, if a 2750 is used for input to the 7770, it must be specified as a 2750 II. This enables the 2750 to be programmed in exactly the same manner as the 7770, thereby allowing it to access line lengths up to 70 picas, as well as all ruling codes.[22]

For more specific operating instructions, refer to the EditWriter 7500 tab.

[22] The same UPD can be used to load both the 7770 and the 2750.

APPENDICES

APPENDICES

APPENDIX A—Specifications

Input:	Direct-entry Keyboard.
Display Terminal:	12″ diagonal display. 18-point characters in cap and lower case.
Character Complement:	128 characters.
Screen Capacity:	15 lines total: 2 lines status and message, 13 lines of text. Scrollable to 6,000 characters or up to 200 lines. (The 1750 has a screen capacity of 3,000 characters.) Maximum 64 characters per screen line.
Keyboards:	Color coded: 69 key secretarial-oriented main keyboard. 4 auxiliary keypads control typographic functions, typesetting, initializing and editing.
Storage:	Magnetic disk of 300,000 characters. 128 files per disk with computer-controlled file management.
Cursor:	Unrestricted movement left, right, up and down.
Corrections:	Character, word, line or paragraph.
Line Length:	Up to 45 picas (7½ inches). 7770 up to 70 picas.
Type Sizes:	Low Range: 6, 7, 8, 9, 10, 11, 12, 14, 18, 24, 30, 36. High Range: 6, 8, 10, 12, 14, 18, 24, 30, 36, 48, 60, 72.
Type Unit System:	54 relative units to the em.
Font Capacity:	96 fonts (2 filmstrips of 4 faces each).
Characters per Font:	118
Total Character Capacity:	11,328 characters available.
Mixing:	8 faces in 12 sizes. Full intraline and interline mixing.
Tabbing:	9 variable tabs: typewriter, automatic, floating. Quadding incorporated in tab definition.
Line Spacing:	0-99½ points in ½-point increments.
Letterspacing:	Automatic or operator controlled.
Word Spacing:	Automatic or operator controlled in 1/54 em increments.
Kerning:	In points or units, 3/54 em, operator controlled.
Character Compensation:	Operator controlled in 1/9-point increments.
Line Endings:	Automatic or operator controlled.
Hyphenation:	Automatic or operator controlled. Justification range indicator, line length remaining in picas and points.
Quadding:	Automatic or operator controlled: left, right and centered.
Insert Capability:	Any flashable character for entire line, multiple insertions per line.
Vertical Depth:	Continuous indication of accumulated line spacing in picas and points. Search for specified depth to assist in block definition.
Reverse Line Spacing:	Up to 72 points in ½-point increments. Optional reverse leading program; up to 14 inches.
Paper Widths:	2, 3, 4, 6 and 8 inches (12 inch for EditWriter 7770).
Depth:	29½ inches.
Width:	64 inches.
Height:	47 inches.
Weight:	725 lbs.
Electrical Requirements:	115 VAC—60 Hz.

NOTE

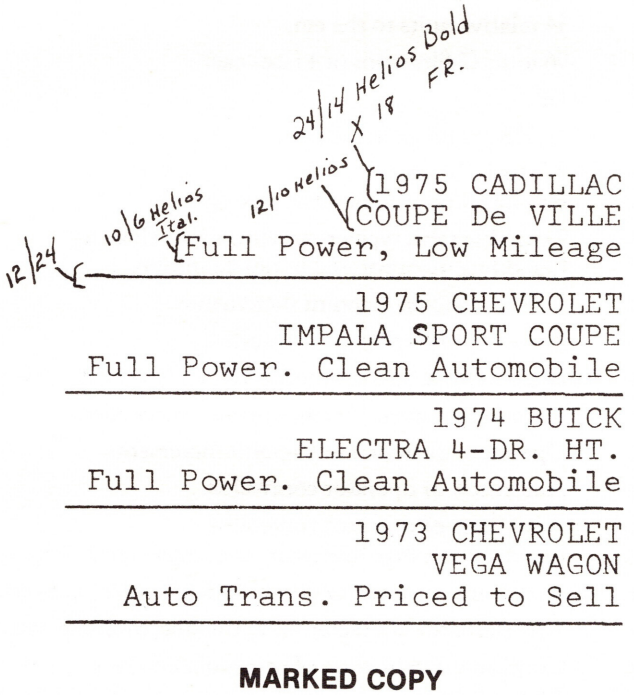
These specifications pertain to the EditWriter 7500. They will vary somewhat, according to the EditWriter model.

APPENDIX B—Formats

A format is a combination of repetitious typesetting instructions and/or characters that are stored in a file. Point size, line space, typeface, line measure, tab parameters and line endings are some of the functions that can be formatted individually or together. There is no limit to the number of characters and typesetting instructions contained in a format. Formats can be recalled as often as necessary, eliminating keystrokes and possible errors.

An operator-defined format is created in the same manner as a file containing text and, like a regular file, a format file can be made up of a series of records. A format can be recalled at any time by using the INSERT BLOCK routine. Striking EXECUTE will call each record of a format in consecutive order, keeping the previous record on the screen. (If necessary, refer to the section on Advanced File Management.)

Exercise: The following exercise contains repetitious copy blocks. Format the typesetting parameters for the first copy block using the ENTER FILE routine, and then use the INSERT BLOCK routine to bring the formats to the screen and input the copy.



MARKED COPY

[SIZE] 24 [LINE SPACE] 140 [FONT] 3 [LINE LGTH] 1800
[ENTER FILE] **format** [EXECUTE]

[QR] [RET] [SIZE] 12 [FONT] 1 [LINE SPACE] 100 [EXECUTE]
[QR] [RET] [SIZE] 10 [FONT] 2 [LINE SPACE] 060 [EXECUTE]
[QR] [RET] [SIZE] 12 [LINE SPACE] 240 [INS CHAR] [PR UC] 0 [RET] [EXECUTE]

Notice how the format file is created. The parameters and coding for each line are entered as a separate record. This is done by entering the first series of commands as a file named "format" and then entering each subsequent line of coding as a record (of the file "format"), using only the EXECUTE key.

Once the format is stored, the operator uses the INSERT BLOCK routine to bring all the necessary coding to the screen so the copy can be input. When the INSERT BLOCK function is used (as opposed to CALL FILE), all information that is on the screen remains on the screen, even when subsequent blocks are inserted. (When CALL FILE is used, information that is already on the screen is automatically cleared to bring up a new file.)

To start the job, the operator must begin with the initialization procedure. However, because the sizes have already been stored in the format, CNCL CHAR is used to delete the code for point size. Using INSERT BLOCK, the format file "format" is brought to the screen. With the necessary coding on the screen the operator can input the first line of copy. Every time EXECUTE is keyed, a subsequent record (with the new parameters and coding) is brought to the screen and the operator continues to input copy.

[EXECUTE] [CNCL CHAR]
[INS BLOCK] **format** [EXECUTE] 1975 CADILLAC [EXECUTE]
COUPE De VILLE [EXECUTE]
Full Power, Low Mileage [EXECUTE]

[INS BLOCK] **format** [EXECUTE] 1974 BUICK [EXECUTE]
[EXECUTE] ELECTRA 4 - DR HT. [EXECUTE]
[EXECUTE] Full Power. Clean Automobile

[INS BLOCK] **format** [EXECUTE] 1975 CHEVROLET [EXECUTE]
[EXECUTE] IMPALA SPORT COUPE [EXECUTE]
[EXECUTE] Full Power Air Conditioning [EXECUTE]

[INS BLOCK] **format** [EXECUTE] 1973 CHEVROLET [EXECUTE]
[EXECUTE] VEGA WAGON [EXECUTE]
[EXECUTE] Auto Trans. Priced to Sell [EXECUTE]

KEYBOARDING INSTRUCTIONS

1975 CADILLAC
COUPE De VILLE
Full Power, Low Mileage

1974 BUICK
ELECTRA 4-DR. HT.
Full Power. Clean Automobile

1975 CHEVROLET
IMPALA SPORT COUPE
Full Power. Air Conditioning

1973 CHEVROLET
VEGA WAGON
Auto Trans. Priced to Sell

TYPESET COPY

APPENDIX C—Screen Symbols

ϟ	Initialization
AE	Automatic Line Ending mode
AT	Auto Tab
CO	Character Compensation On
CX	Character Compensation Off
CC=	Character Compensation Set
CT	Call Tab
PR↑CR	Carriage Reset (Tabulation Reset)*
DH	Discretionary Hyphen
EL	End Line (No Film Feed)
FF	Film Feed (For Leader)
FT=	Font (Face)
FO	Flash Only
HO	Auto Hyphenation On
HX	Auto Hyphenation Off
IC	Insert Character
IS	Insert Space
LO	Auto Letterspacing On
LX	Auto Letterspacing Off
LS =	Line Space (Leading Value)
LL=	Line Length (Measure)
ME	Manual Line Endings
+LLD	Plus Line Space
−LLD	Minus Line Space
MJ	Multijust
PR↓	Precedent Lower Case
PR↑	Precedent Upper Case
PR↑+PSP	Forward One Point of Space (PREC,FWD)*
PR↑−PSP	Back One Point of Space (PREC,BACK)*
PR↑SB=	Precedent Spacebar*
−PLD	Minus (−)1 Pt. Space
+PLD	Plus (+)1 Pt. Space
QL	Quad Left
QR	Quad Right
QC	Quad Center
↩	Return Code
SO	Space Only On
SX	Space Only Off
SZ=	Size
TB	Tab
TB=	Tab Set
T↩	Tab Return
−SP	Back
+SP	Forward (FWD)
□	Em Space
▯	En Space
▯	Thin Space

* ↑ or ↓

APPENDIX D—Error Messages and Corrective Actions

MESSAGE	CORRECTIVE ACTION
CASE—Indicates that the take-up cassette has not been replaced, or is not seated properly in the photo unit.	Replace or reseat the cassette into the photo unit compartment and strike RESET to clear the error message.
COLUMN LENGTH EXCEEDED—Appears during the reverse lead program if the maximum column depth of 14 inches has been exceeded.	Recalculate the column depth to verify that the maximum of 14 inches (84 picas) has not been exceeded. Strike PREC,Z to return the paper to the reference before exceeding the maximum depth.
DISK ERROR—Indicates that a file called to the screen contains an error. It is caused if the disk is not seated properly in the drive or if the disk is damaged.	Strike RESET and remove the disk from the transport. If the EditWriter is equipped with a dual disk, try to duplicate the damaged disk and discard the old. Key DUP DISK, EXECUTE. The EditWriter will automatically transfer all files onto the new disk until it encounters a file with a DISK ERROR message. At that time, all remaining files (without disk errors) on the original disk will have to be transferred individually onto the new disk using DUP FILE, FILE NAME, EXECUTE. Do not record additional information onto the faulty disk. However, files (already on the original disk) that do not display the DISK ERROR message when called to the screen can be edited and typeset.
DISK NOT OPEN—Appears if an attempt is made to call a file onto the screen by striking CALL FILE, EXECUTE without first naming the file.	Strike CALL FILE. Type the name of the file exactly as it appears in the index and strike EXECUTE.
DISK FULL—Indicates that the recording capacity of 300,000 characters or 128 files has been reached for the disk in use.	Remove the disk from the transport and insert a new disk. Make sure that this is an initialized disk whose Index is less than 75 percent full. (At this time there is no way to check this out without losing the information on the screen. Therefore, it's good practice to keep such a disk handy. It would also be helpful to know the file names listed on the Index.) Strike ENTER FILE, type the file name, EXECUTE to enter the information from the screen onto the disk.
EXCEEDED LIMIT—Indicates that more than 256 characters have been entered in a line without a line ending code. On the EditWriter 7770 there is a 1,024 character limitation. The message often occurs when the AutoKern Option is used with small point sizes.	Check to see whether the width cards have been inserted correctly. Strike CNCL CHAR to delete the extra characters, and insert a line ending code. The message will clear when the character count is within range.
EXCEEDED REFERENCE—Appears if an attempt is made to back up past the top limit ("reference") established when the reverse lead program is activated with the PREC,S sequence.	If PREC,B has been used, recalculate the distance from the reference point (PREC,S) to PREC,B by placing the cursor on PREC,B and rejustifying. (Note: To obtain an accurate depth count, PREC,S must precede all return and forward lead codes.) The depth calculation that is obtained after rejustification is the maximum that can be reversed using PREC,B,XXXX.
FILE IN QUEUE—Appears if REPL FILE, DEL FILE or INSERT FILE is used to alter a job that is in queue to the photo unit.	Wait until the file has finished processing before altering or rename the file and make the necessary changes to the new file.

MESSAGE	CORRECTIVE ACTION
FILE NAME IN USE—Appears if the operator assigns a name to a file already listed in the index when SAVE BLOCK or ENTER FILE are used.	Strike ENTER FILE or SAVE BLOCK depending upon which function is needed. Type a different file name and strike EXECUTE to store the file on the disk.
FILE NOT OPEN—Indicates that the system is not addressed to a named file. This appears when the operator fails to type a file name during the CALL FILE, ENTER FILE or DEL FILE functions.	Complete the desired function (CALL FILE, ENTER FILE, DEL FILE) by typing a file name. Strike EXECUTE to complete the function.
FILM—Indicates that the supply of photographic material must be replenished.	Remove the depleted box of photographic material and replace it with a new box. If your EditWriter has a film feed counter, reset it to zero.
FONT UNDEFINED—Appears when the operator fails to make a choice of type style.	Strike the FONT key followed by one digit (1-8) to choose one of the eight available styles before entering copy.
KEYBOARD FULL—Indicates that a series of function commands consisting of more characters that can be stored in the keyboard memory have been entered. Also appears if copy is input after the screen buffer memory has been filled or, if the operator is keyboarding information while a file is being rejustified.	Wait until the function in process completes and the message leaves the screen before keyboarding additional information. If the system will not accept input, RESET to clear. However, all copy will be lost.
LENGTH EXCEEDED T?—Indicates that the maximum line measure of 45 picas has been exceeded. When followed by a number from 1-9, indicates that the sum of the tab indent and line measure exceeds the maximum line measure of 45 picas. (On the 7770 the maximum line measure refers to 70 picas.)	Check to be sure that the line length entered does not exceed 45 picas. If entering typewriter tabs, check that the addition of the tab indent and line measure does not exceed 45 picas. If tabs are repeated in a job by using multijust or floating tabs, be sure that the repeated measure does not exceed 45 picas.
MARG—Appears when copy sent to the photo unit exceeds either the left or right margin. The margin error is caused by the following conditions: • Failure to rejustify a job before sending to the photo unit. • Attempt to back up the carriage using the BACK key while positioned on the left margin. • Error made while entering specifications for line length or tab parameter.	Clear the screen of copy and strike RESET to prime the system. Call the job in error onto the screen and key REJUST, EXECUTE. If errors have been made in defining the tab parameters or line lengths, the message LINE LENGTH EXCEEDED will appear in the Status Line. Redefine the incorrect instructions. If this does not clear the error, check to be sure that the BACK command has not been used on the left margin. Strike REPL FILE to return the job onto the disk. Strike TYPESET to direct the file to the photo unit.
MEASURE UNDEFINED—Indicates that the operator has forgotten to enter an overall line measure. Also occurs in the tabular mode if a tab is called for in which no line measure has been defined.	Enter the necessary line measure in picas and points before inputting copy. If in the tabular mode, check to be sure that the tab measure has been properly defined and that the appropriate tab is being called.
MEMORY FULL—Indicates that the screen memory is full. An audible tone accompanies this message.	If the copy on the screen is to be the first record of a job, move the cursor back to a logical breaking point (allowing space in the record for later corrections) and strike ENTER FILE. Type a file name and strike EXECUTE. If a name has already been established for the file, enter a portion of the record by striking ENTER FILE, EXECUTE. The remaining copy on the screen can be entered in the same manner.

MESSAGE	CORRECTIVE ACTION
NO DISK—Appears if an attempt is made to call from or enter information onto the disk when a disk is not inserted into the EditWriter. Also appears if ENTER FILE, REPL FILE or INSERT FILE is attempted on a write-protected disk.	Insert the appropriate disk and complete the desired function. (Note: if information is to be entered onto the disk be sure that the disk has been initialized in advance.) If information on a write-protected disk is to be changed, a write permit tab must be placed over the cut-out on the bottom of the disk.
NO SUCH FILE—Appears when the operator types the name of a file incorrectly or when a file by that name is not stored on the disk.	Call the index to verify that the desired job is stored on the disk. Strike CALL FILE and retype the name exactly as it appears in the file index.
OVERSET—Appears in the manual line ending mode during keyboard entry or rejustification when the total value of the characters and word spaces on the line will not fit within the given line measure.	Strike CNCL CHAR until the justification range message appears on the status line. End the line with a return or hyphen and continue with the next line.
PHOTO UNIT BUSY—Appears when copy exceeding the 6,000-character memory is sent directly to the photo unit from the screen by striking SET FILE, EXECUTE.	Wait until the copy has cleared the screen before continuing to input. (Note: to avoid the PHOTO UNIT BUSY message it is recommended that all jobs be sent to the photo unit by striking SET FILE. Type the file name and EXECUTE to complete the function.)
P1 SYSTEM ERROR—Indicates a misreading in the keyboard memory.	Strike RESET to clear.
P2 SYSTEM ERROR—Indicates that there is an error condition in the photo unit and is caused if an unjustified job is sent to the photo unit.	Clear the screen of all information and strike RESET. Call the job in error onto the screen and rejustify. Strike TYPESET (if necessary) to direct the job to the photo unit. Strike REPL FILE, EXECUTE.
REFERENCE ALREADY SET—Appears if an operator enters more than one reference instruction (PREC,S) for a page.	Strike CNCL CHAR to delete the incorrect instruction and finalize the program for the page with PREC,X before beginning the next page with PREC,S.
REFERENCE NOT SET—Indicated when the return to zero instruction (PREC,Z) is called without first setting a reference point. May appear subsequent to RLO message if operator tries to access MCPO (Multiple Column Positioning Option) without actually having the option on their equipment.	Return the cursor to the start of the page and strike PREC,S to establish a reference point.
TOO MANY COLUMNS—Appears if the operator attempts to exceed the 10 column maximum allowed for the reverse lead program.	Verify all tab settings and limit number of tab calls to 10.
USE ENTER THEN SET—Appears if an attempt is made to bypass the disk and send copy directly to the photo unit while other jobs are in the output queue.	To typeset the file strike ENTER FILE. Strike TYPESET to select "WITH COPY" or "WITHOUT COPY". Type a file name. Strike EXECUTE to enter the file into the queue for processing.
WRONG FONT—Indicates that an invalid font has been chosen. This message might occur with both the 7100 and 7300 EditWriters.	Strike CNCL CHAR to correct the error and select one of the four type styles resident in the system.

MESSAGE	CORRECTIVE ACTION
WRONG POINT SIZE—Indicates that an invalid point size has been chosen.	Strike CNCL CHAR to correct the error and select one of the 12 sizes resident in the photo unit.

NOTE

Do not hesitate to contact your local Compugraphic service representative if these Error Messages cannot be cleared from the screen.

If you encounter any Error Messages that have not been explained, refer to the Option Section. Error Messages pertaining specifically to the EditWriter enhancements (other than MCPO) are listed within the appropriate tab.

APPENDIX E—Screen Messages

ACT—The ACT message indicates the photo unit is actively processing copy.

CALL FILE—Appears when the operator strikes CALL FILE to read copy from the disk onto the screen.

CALL INDEX—Appears when the CALL INDEX key is struck. When followed by EXECUTE, an Index of all jobs stored on the disk appears on the screen.

CLEAR MEMORY—Appears when the operator strikes CLEAR DISP MEMORY to clear the display screen of all information. The clear memory function has no effect on the disk.

COMPLETED—Appears when a function has been completed and the system is ready for other commands.

DELETE FILE—Appears when the operator keys DEL FILE to remove an entire file or file record from the disk.

DUP DISK—Indicated when duplicating a disk or file (Dual Disk Option).

EDIT—Appears when the operator strikes any of the keys located on the lower-left keypad (edit keypad) and signifies that the system is in the non-counting mode.

END OF BLOCKS—Appears during the INSERT BLOCK function to indicate to the operator that the last record in the series of blocks has been called.

END OF DATA—Appears during the MEASURE DEPTH function when there is insufficient copy remaining on the screen to fill the required depth.

END OF FILE—Indicates that the material displayed on the screen is the final record in the file being called.

ENTER FILE—The message appears when the information is transferred from screen to disk using the ENTER FILE function.

ENTRY—Appears when system is in the counting mode.

ERASE?—Appears with the first depression of the ERASE DISK key.

ERASE DISK—Appears with the second depression of the ERASE DISK key. When followed by the EXECUTE command all information on the disk is erased.

INDEX—Appears after the CALL INDEX, EXECUTE command when the index is displayed on the screen.

INIT—Indicates the INIT Key has been used. When followed by EXECUTE the system is initialized and prepared for inputting parameters.

INSERT BLOCK—Appears when the operator keys INSERT BLOCK to transfer information recorded on the disk to the screen. A colon is incorporated in the message requesting the operator to type the name of the desired file. When subsequent records of the same file are called, the file name in use appears in single quotes next to this message.

INSERT FILE—Indicates that the operator has keyed INSERT FILE to divide the contents of the screen into additional file records.

JOB IN QUEUE—This message indicates that a job has been directed to the photo unit. This message appears after the sequence SET FILE, NAME, EXECUTE has been keyed.

#JOBS IN QUEUE—Indicates the number of jobs presently in line to the phototypesetter. This message appears immediately after keying SET FILE.

REPLACE FILE—Appears when the REPL FILE key is struck. When followed by EXECUTE copy on the screen is directed back onto the disk replacing the old job with an updated version.

JUSTIFICATION RANGE—Indicates the first point at which a line can be ended so the width of the spacebands remain within the limits established during initialization.

KEY NOT FOUND—Appears during the SEARCH or REPL SEARCH functions to indicate that the last occurrence of the search sequence has been reached. May indicate that the sequence keyed cannot be found.

L=(2 digits), C=(3 digits)—Indicates that the screen memory has 25 lines (L) or 500 characters (C) before becoming full. This message is also accompanied by an audio signal.

MEASURE DEPTH—Appears when the operator strikes the MEAS DEPTH key to request that the system search for a specific accumulated line spacing value. Five digits entered after the message indicate the depth to be searched in picas and points.

PERC USED—Preceded by two digits indicates the amount of used space on the disk. This percentage refers to the character capacity.

QUEUE IS FULL—Indicated when five files or records have been sent to the queue.

REJUST—Appears when the operator strikes REJUST. When followed by EXECUTE, the contents of the screen up to the cursor will be recounted.

Screen Messages

REP/SEARCH KEY—Appears when the operator strikes the REPL SEARCH key to initiate the search for a particular character combination.

SAVE BLOCK—Appears when the operator strikes the SAVE BLOCK key in order to define character or code sequences that will be stored separately on the disk. A colon is incorporated in the message requesting the operator to assign a file name to the material being stored. As subsequent blocks are stored in records under the first, the previously assigned file name appears in single quotes next to this message.

SEARCH KEY—This message appears when the operator strikes the SEARCH key to initiate a search for a particular character combination. A colon is incorporated in the message requesting the operator to assign the characters to be searched.

SET FILE—When followed by a file name, SET FILE indicates transfer of material from the disk to the photo unit for processing. When keyed without a file name, SET FILE indicates a transfer of information from the screen directly to the photo unit without being stored on the disk.

?? UNDEFINED COMMAND—Indicates that the operator has keyed EXECUTE without preceding it with a specific command such as ENTER FILE, REPL FILE, INSERT FILE, etc.

WITH COPY/WITHOUT COPY—Appears when the TYPESET key is depressed and indicates that copy will be transferred to the disk alone (WITHOUT COPY) or to both the disk and the photo unit at the same time (WITH COPY).

NOTE

If you encounter any Screen Messages that are not explained above, refer to the Option Section. Screen Messages pertaining specifically to the EditWriter enhancements are noted within the appropriate tab.

APPENDIX F—Care of Your EditWriter

Safety Procedures

For greatest safety during preventive maintenance, adjustments and replacement of parts, follow these safety guidelines.

1. Turn power Off and remove plug from wall outlet as directed when servicing the interior of the unit.
2. If safety covers must be removed in order to service unit, be certain to replace them.

Filters (to be cleaned weekly)

The dust filter should be cleaned weekly or more often if required. Replace the filter every six months, as it loses efficiency after extended use and can cause overheating of the system.

1. (Power Off) Remove the rear panel (four fasteners) and lift the filter up and out of the unit.
2. Vacuum clean or wash the filter with a detergent solution. Dry before installing.

NOTE

Do not blow dust from the filter with air pressure. Damage to the eyes may result.

Cassette and Rollers (to be cleaned weekly)

Bits of paper in the cassette or on the drive rollers can get onto the roll of paper and obscure the flash, causing bad copy.

1. Lift the hinged cover to the cassette chamber and remove the cassette.
2. Loosen the end-screw and open the cassette. Remove any foreign materials and reassemble.
3. Lift off the cover to the paper supply chamber. Lift the two end latches and remove the pressure plate.
4. Brush dust and bits of paper from the rollers and reassemble. Replace covers.

Filmstrips (to be cleaned whenever necessary)

Filmstrips may become dusty or grimy, causing bad output copy or improper flashing timing.

1. (Power Off) Lift photo unit cover and remove the filmstrips from the drum.
2. Clean the filmstrips on both sides with a soft cloth which has been moistened with isopropyl alcohol (90% or greater).

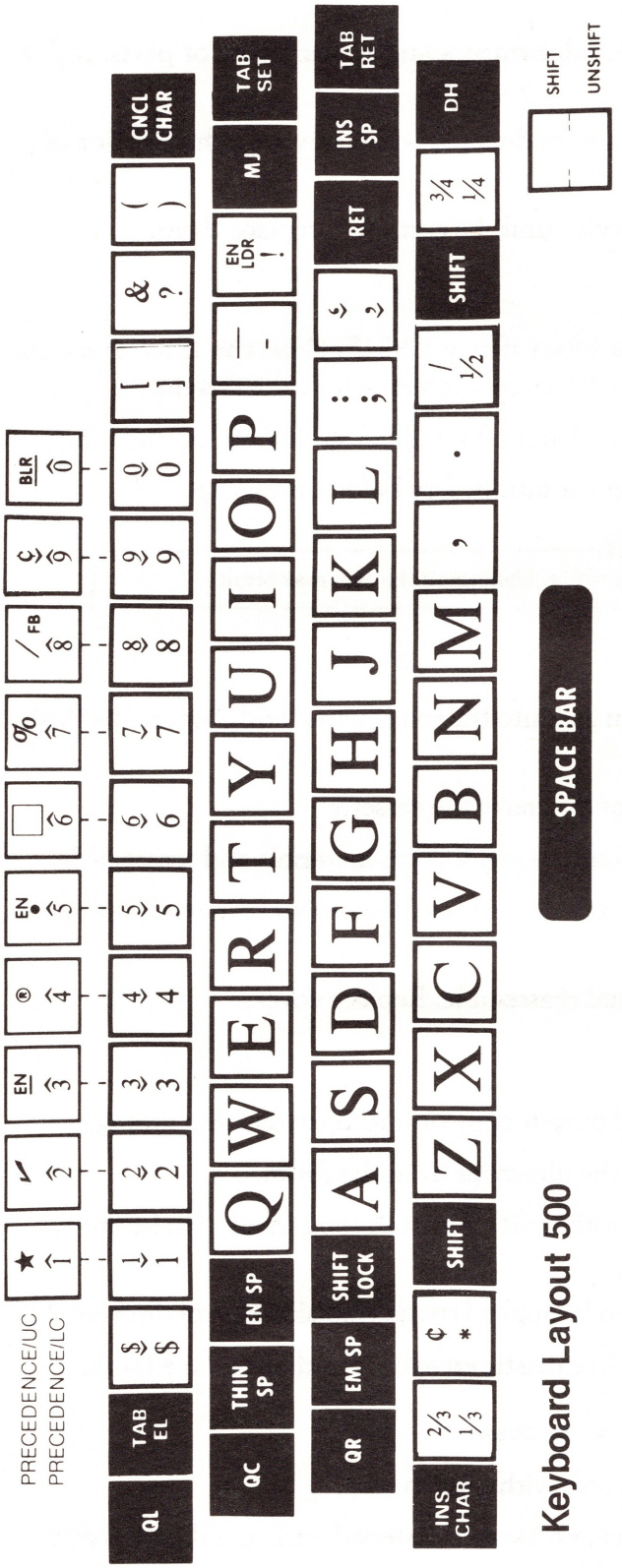
Scratches: For touch up, india ink or graphic pen can be applied to the emulsion side of the filmstrip.

Storage: Filmstrips should be stored in their protective plastic envelopes and hung on a hook.

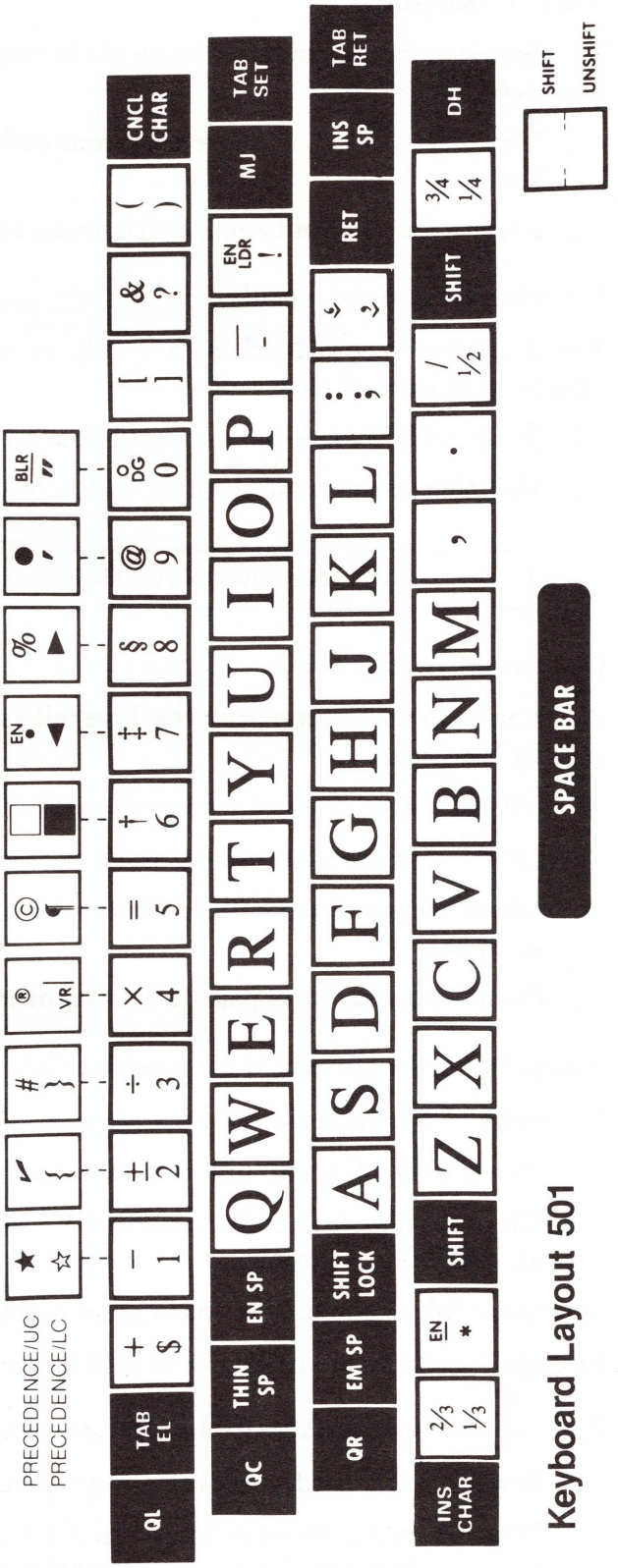
Exterior Painted Surfaces (to be cleaned whenever necessary)

1. Remove power cord from outlet. Do not clean unit with plug in wall.
2. Wipe painted exterior of unit with a soft, lint-free cloth moistened with a mild detergent solution. Avoid the keytop and control panel areas.

APPENDIX G—Keyboard Layouts



Keyboard Layout 500



Keyboard Layout 501

Keyboard Layout 502

INDEX

Appendix A—Specifications 183
Appendix B—Formats 184-185
Appendix C—Screen Symbols 186
Appendix D—Error Messages & Corrective Actions 187-190
Appendix E—Screen Messages 191-192
Appendix F—Care of Your EditWriter 193
Appendix G—Keyboard Layouts 194-195
AutoKern (See tab in Options Section)
Automatic Baseline Rules (See Baseline Rules)
Automatic Insert Leaders (See Leaders)
Automatic Line Ending 22,24,53-55,161
(exercise) 54
Automatic Quadding (See Neat Composition)
Automatic Tabs (See Tabular Composition)
Back One Point 65
(exercise) 65
Back (Space-1 Unit) 63
(exercise) 63
Baseline Rules 77-78
(exercise) 78
Block Routines—Insert/Save Block 95-96,101-102
Call File (See File Management)
Call Index (See Index)
Cancel Character 22,87
Carriage Reset (See Tabular Composition/Deactivating Tabs)
Character Alignment (See Flash Only, Space Only)
Character Compensation 23,28,161
Clear Display Memory 87
Contrast Control 20
Copy Flow 10
Creating User Program Disks 165,174-175
Cursor Controls 81,84-87
Cancel Character 87
Clear Display Memory 87
Delete Character 86
Delete Line 86
Delete Paragraph 86
Down Arrow 85
Home 84
Left Arrow 84
Limit/Left Arrow 85
Limit/Right Arrow 85
Right Arrow 84
Up Arrow 85
Delete Character (See Cursor Control)
Delete File (See File Management)
Delete Line (See Cursor Control)
Delete Paragraph (See Cursor Control)
Disk 3,5,33-35
Disk, Duplication (See Dual Disk tab in Options Section)
Disk Erase 35,177
Disk, Initialization 35,177
Disk, Insertion 34
Disk, Maintenance 33
Disk, Percent Full 36
Disk, Write Permit Tab 33
Dual Disk Option (See tab)
Duplicate Font Mode 141-142
DuroGraphic Photomechanical Paper 13
Edit Keypad 8
Edit Mode 11,37,55,81-82,84,89
Editing Functions 81-89
(See also Cursor Control/Insert/Overstrike)
EditWriter 1750 153-171
EditWriter 2750 151
EditWriter 7100 149-150
EditWriter 7300 143
EditWriter 7400 145-147
EditWriter 7700 139-142
EditWriter 7770 13,18,179-181
(See also MCPO tab in Options Section)
EditWriter II 22,173-178,181
EditWriter 8600/Emulator (See tab in Options Section)
Em Space 59
(exercise) 59
En Space 60
(exercise) 60
End Line 73
(exercise) 74
Enter File (See File Management) 87-89
Entry Mode 11,81,87-89
Erasing a Disk (See Disk)
Error Messages (EditWriter 1750) 178
Error Messages/Corrective Actions 187-190
Exception Dictionary (See tab in Options Section)
Exposure Controls 15-16
File Duplication (See Dual Disk tab in Options Section)
File Index (See Index)
File Management 33
Call File 39
Delete File 41
Enter File 37,91,105
Insert File (Insert Records) 97-98
Replace File 40,97
Set File 37-38,105-106
File Management Keypad 8
File Name Change (See Dual Disk tab in Options Section)
File Records 91-92,97-98
Delete Record 92
Replace Record 92
Film Advance 13,38,140
Film Feed 38,140
Filmstrips 4,17-18,141-142,193
Filmstrip, Loading 17-18,141-142
Filters 156,193
(See also Exposure Controls)
Fixed Spaces (See Em, En, Thin Space)
Flash Only 79
(exercise) 79
Floating Tabs (See Tabular Composition)

Font (See Filmstrip and/or Typeface)
Font Drum 4,17-18,140
Formats 184-185
Forward One Point 64
(exercise) 64
Forward (Space-1 Unit) 62
(exercise) 62
Fuses 20,156
Grade S Photomechanical Paper 13
Hanging Punctuation (See Flash Only)
Horizontal Spacing
(See Spaceband Minimum and Maximum,
Fixed Spaces, Forward, Back, Forward One Point,
Back One Point)
Hyphenation, Automatic 23,29,53,55-56,160
Hyphenation, Discretionary 29,53,56
Index 36,39,103
Initialization 21-25,158-159
Initialization Keypad 7
Initialization Sequence (example) 25
Insert 89
Insert Block (See Block Routines)
Insert Character 75-76
Insert File (See File Management)
Insert Leaders (See Leaders)
Insert Space 47-48,75
(exercise) 48
Intelligent Communications Interface-ICI
(See tab in Options Section)
Job Start-Up (See Initialization)
Justification 53
Justification Range 53,55
Justified Composition 53
Kerning (See AutoKern tab in Options Section)
Keyboard 2-3,6-8,154
Keyboard Layouts:
Ad 194
Book & Commercial 194
Multilingual 195
Keypads (See specific keypads)
Lower Left/Lower Right
Upper Left/Upper Right
Label Printer (See tab in Options Section)
Leaders 76
(exercise) 76
Leading (See Line Space)
Lens Configuration
(High/Low Range) 30
Lenses 4,30
Letterspace 23,27,60
Line Ending (See Automatic/Manual Line Ending)
Line Length 21,24-25,31,179
Line Space 21,24,30,66-68
(exercise) 68
Lower Left Keypad 8,154
Lower Right Keypad 8,146,150,154
Maintenance 156,193
Manual Line Ending 24,55
Master Program Disk Messages (EditWriter 1750) 176
Measure Depth 99-102
Merging Copy (See Dual Disk tab in Options Section)
Minus Line Space 72
(exercise) 72
Minus Point Space 70
(exercise) 70
Multiple Column Positioning Option (See tab in Options Section)
Multiple Hyphenation—MHO (See tab in Options Section)
Neat Center 52
(exercise) 52
Neat Composition 49
(See also Neat Center, Neat Left, Neat Right)
Neat Left 49
(exercise) 50
Neat Right 51
(exercise) 51
Non-Photo (See Space Only)
Off-Line Input (See EditWriter 2750)
Outlines (See Automatic Tabs)
Overset 55
Overstrike 89
Paging 101-102
(See Multiple Column Positioning tab in Options Section)
Paper (See Photomechanical Paper)
Parameter Changes 30,159
Line Length 21,31
Line Space 21,30
Point Size 21,30
Typeface 21,30
Parameter Line 11,155
Parameters 21,30
PermaGraphic Film 13
PermaGraphic Paper 13
Photo Unit 3-4,141,143,150
Photomechanical Paper
(See DuroGraphic, Grade S, PermaGraphic, RC)
Photomechanical Paper, Loading 13-14
Plus Line Space 71
(exercise) 71
Plus Point Space 69
(exercise) 69
Point Size 23,30,66-67
Power On/Off 21
Practice Exercises 127-138
Precedent Keys 8
Preview (See tab in Options Section)
Printer (See tab in Options Section)
Program Loading 157,177
Quad Center 46
(exercise) 46
Quad Left 44,53,55
(exercise) 44
Quad Right 45
(exercise) 45

Quadding 44
(See also Neat Center/Left/Right)
Queuing. 103-104
RC Photomechanical Paper 13
Records (See File Records)
Rejustification 88
Replace File (See File Management)
Replace Search (See Search)
Reset. 21,23,159
Return 113
Reverse Lead
(See Minus Line Space, Minus Point Space)
Reverse Lead Option Program
(See Options Section, Multiple Column Positioning—MCPO)
Ruling—ERO (See tab in Options Section)
Save Block (See Block Routines)
Screen. 3,9-12,82,155
Screen, Contrast Control. 20
Screen, Memory 10-11,37,88,91,97
Screen Messages 191-192
Screen Symbols 186
Scrolling 82-83
Limit Scroll Down 83
Limit Scroll Up 83
Scroll Down 9,83
Scroll Up 9,83
Search 93
Search, Replace 94
Spaceband Minimum/Maximum 23,26,57
(exercise). 58
Space Only 80,161
Specifications 164,183
Standard Operating Conditions 23
Status Line 12,155
System Messages (EditWriter 1750) 166-170
Tabular Composition. 107-125,163
Automatic Tabs 121-124
(exercise) 123-124
Call Tab. 111-113
Deactivating Tabs. 113-114
Floating Tabs 116-118
(exercise) 118
Multijust 119
(exercise) 120
Tab Line Endings 112-114,161,163
Tab Parameters. 108-110
Tab Repeat 119
Tab Return 113
Tabulation Summary. 125
Typewriter Tabs 108-115
(exercise) 115
Thin Space. 61
(exercise) 61
Typeface (Font). 24,30
Typeset Key 38
Typesetting Sequences 105-106
Typewriter Tabs (See Tabular Composition)
Typographic Keypad 7
Underlining. 121,131
Unique Font Mode. 23,141-142
Upper Left Keypad 7
Upper Right Keypad. 7
Vertical Spacing 66
(See Line Space, Minus Point Space, Minus Line Space,
Plus Line Space, Plus Point Space)
Width Cards 19
With Copy/Without Copy 37
Word Space (See Spaceband Minimum/Maximum)
Write Permit Tab (See Disk)
Zero Line Space (See End Line)

OPTIONS

OPTIONS

Compugraphic has added a whole new dimension of capabilities to its EditWriter Family. The rising cost of materials and the need for speed and efficiency have fostered the development of several time and money-saving retrofittable options for the EditWriter.

- The Dual Disk Option allows the operator to duplicate entire disks as well as merge copy from several source disks onto a single disk.
- The Multiple Column Positioning Option is a reverse lead and pagination program which enables the operator to set multi-column work in position without paste-up.
- The Ruling Option simplifies the production of complex composition by eliminating manual ruling and minimizing paste-up.
- The Printer saves money and maximizes the efficient flow of copy by reducing the usage of photographic materials and chemistry. The operator can get low-cost proof copy at 55 characters-per-second.
- The Label Printer, in conjunction with the Printer, allows the operator to automatically print address labels using files that have been specially prepared on the EditWriter.
- The Preview allows the operator to view any ad or page at the touch of a key. Thus, it eliminates the trial and error often associated with typesetting.
- The Multi-Hyphenation Option allows the operator to program the EditWriter to automatically hyphenate several languages.
- The AutoKern Option produces perfectly kerned and compensated output copy without complicated keystrokes or coding.
- The Intelligent Communications Interface (ICI) allows the operator to typeset, without rekeyboarding, (via telephone or direct cable) what a computer or word processor has computed or processed.
- The EditWriter/8600 Emulator allows hyphenated and justified text to be sent on-line to the 8600, Compugraphic's high-speed digitized typesetter.

DUAL DISK

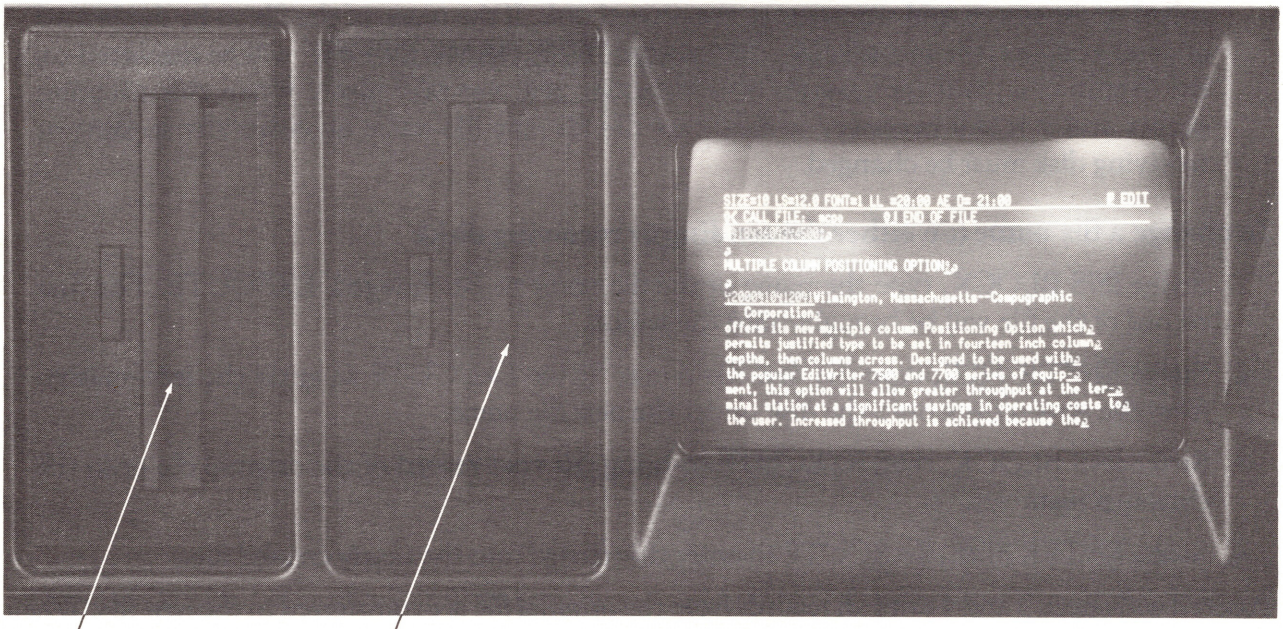
DUAL DISK

The dual disk drive is available as an option for the EditWriter 7500, 7300, 7700, 7770 and 2750. This optional transport allows the operator to:

- Duplicate entire disks
- Duplicate single files
- Merge jobs from several source disks onto one single disk

Dup Disk

The second disk transport is located immediately to the left of the primary disk drive. When the option is purchased, a DUP DISK key is added to the File Management Keypad to access the capabilities of the second disk drive.



To duplicate an entire disk:

1. Place the original disk in the disk transport on the right. Place the second disk (the receiving disk) in the left transport. (If the second disk is a new disk, it must be initialized in order to receive information. If it already contains files, any new files will be added to the existing files, and the new file names will be appended to the Index.)
2. Strike DUP DISK, EXECUTE. (The DUP DISK key is located in the lower-right file management keypad.) The system will call each record of every file (on the disk) onto the screen. Subsequently, all file data will be entered onto the second disk in the left transport. This copying process continues throughout the Index until all files have been copied onto the second disk.

To duplicate a single file:

1. Strike DUP DISK, and type the name of the file (exactly as it appears on the Index) that is to be duplicated.
2. Strike EXECUTE to start the duplication process. Each record of the named file will be called to the screen and copied onto the second disk. If the name of the file to be duplicated already exists on the second disk, the message "FILE NAME IN USE" will be displayed on the Status Line, and the transfer of information will not take place. When this situation occurs and it is still necessary to duplicate the file, the file name on either the sending or receiving disk must be changed.

To change a file name (on either the sending or receiving disk):

1. Strike INS BLOCK, type the name of the file name to be changed, EXECUTE. The first record of the file will be brought onto the screen.
2. Strike ENTER FILE, type the new file name. Strike EXECUTE to enter the information from the screen back onto the disk under the new file name.
3. Strike INS BLOCK, then EXECUTE to bring the next record of the original file onto the display screen.
4. Strike ENTER FILE, EXECUTE to enter this record into the newly created file.

Proceed with steps 3 and 4 until all records from the original file are transferred to the new file. When the last record from the original file is called onto the screen, the message " END OF BLOCKS " will appear in the Status Line.

After the name has been changed, the file can be duplicated onto the second disk following the procedure described for duplication of a single file.

NOTE

The Duplicate Disk function utilizes the screen memory. Therefore, when jobs are being duplicated new copy cannot be input. However, if jobs are queued in advance of the DUP DISK procedure, the photo unit can be setting copy while files are being transferred.

MULTIPLE COLUMN POSITIONING (MCPO)

MULTIPLE COLUMN POSITIONING (MCPO)

The Multiple Column Positioning Option (MCPO) is a reverse lead and pagination program which enables the EditWriter operator to set multi-column work in position without paste-up.

Three separate EditWriter functions are used to complete the pagination process: Reverse Leading, Measure Depth and Tabbing.[1] Reverse leading controls the vertical movement of photographic material to position the start of each column accurately. With this program, up to 10 columns, 14 inches (1008 points) in vertical depth can be aligned side by side. The measure depth function is used to determine the vertical copy fit for the column depth, and the EditWriter tabbing features control the horizontal positioning of copy. The total width of tab columns cannot exceed the EditWriter's maximum line measure of 45 picas (70 picas for the 7770.)

Compatibility

MCPO is standard on the 7770; however, it can be ordered with a field retrofit on all standard EditWriter's or Series II models, except the 1750. It is not available for use with the 1750 because the measure depth feature is lacking. While it can be ordered for the 7100 and 7400 (EditWriter's without disk storage), use of this option with these models is somewhat impractical.

In addition, MCPO codes can be accessed from a standard 2750 without adding or changing any of the hardware or software. However, if the 2750 is to drive an EditWriter II photo unit, a 2750 II must be ordered.

Photo Unit

An EditWriter with the MCPO differs in physical appearance from the standard EditWriter. The front panel of the photo unit protrudes approximately three inches from the front of the machine. This "belly-like" enlargement of the photographic paper transport creates a cavity where 14 inches of photographic paper can be stored for use in the reverse lead program.

When the pagination program is initiated, 14 inches of photographic paper is automatically pulled from the supply box into the paper transport. This step frees the paper from tension and allows it to be moved up and down during the pagination process.

[1]For review of these functions, refer to the 7500 tabs; Typesetting Functions, Advanced File Management and Tabular Composition.

Photographic Material

For the MCPO to function properly, 8″ photographic material must be used (12″ paper is required for use of the MCPO on the 7770). The paper can be Kodak Type S, DuroGraphic, PermaGraphic, or RC paper. (Refer to p. 13 of the EditWriter 7500 Section, Machine Components.)

To load photographic material (Refer to the photos):

1. Lift the cover of the cassette compartment and remove the receiving cassette.
2. Remove the lower cover of the material transport assembly.
3. Raise the paper turning roller (lower compartment) and slide the box of material into the transport. The box must be seated so that the paper pulls straight out (Fig. 1) rather than up (Fig. 2) as it does in the standard EditWriter.

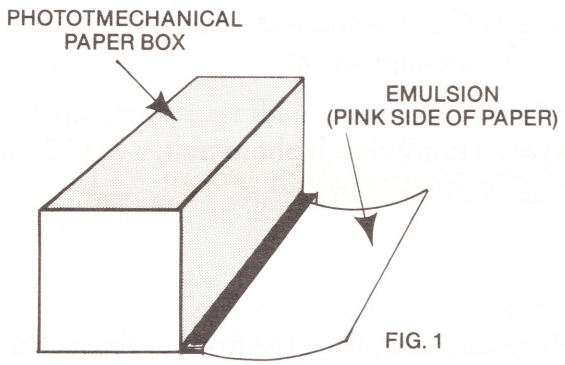


FIG. 1

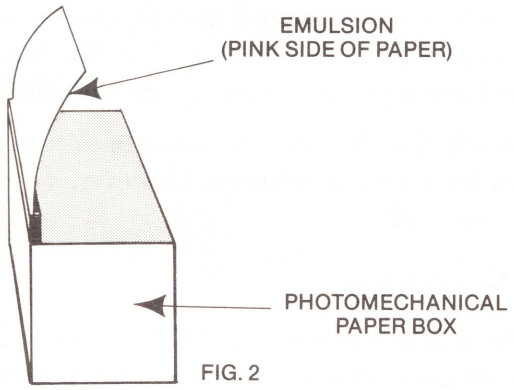


FIG. 2

4. Drop the backing plate by lifting the pivot latch located on each side of the plate (Fig. 3).
5. Pull out approximately 18 inches of material from the box, sliding it under and around the paper turning roller (Fig. 4).

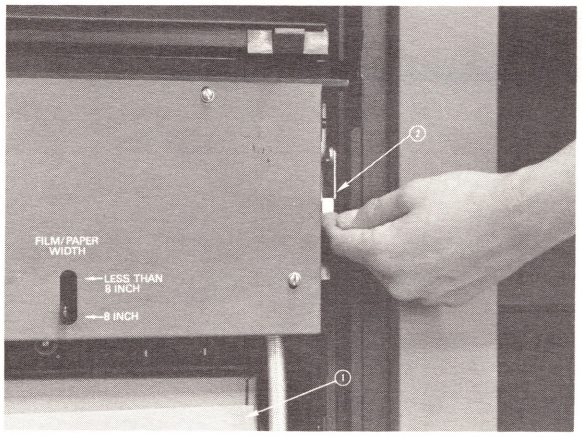


FIG. 3

1. PHOTOGRAPHIC MATERIAL
2. PIVOT LATCH

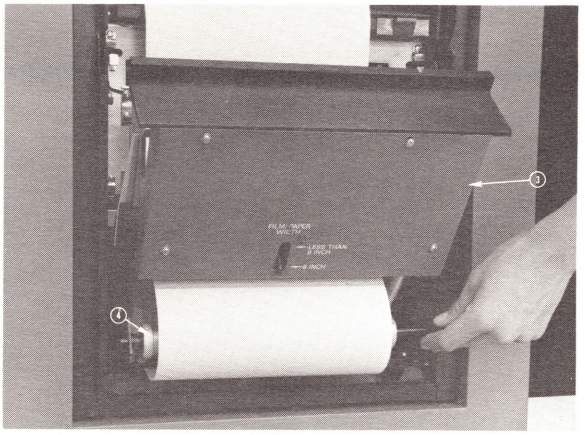


FIG. 4

3. BACKING PLATE
4. PAPER TURNING ROLLER

6. Slide the paper up and through the paper cutter assembly.
7. Carefully align the paper behind the paper guide by moving it to the left. Be sure it is positioned under the guide bar as shown (Fig. 5).
8. Close the backing plate, locking the pivot latches.
9. If your model has a back drive release lever, check to see that is is down. Replace the bottom cover (Fig. 6).

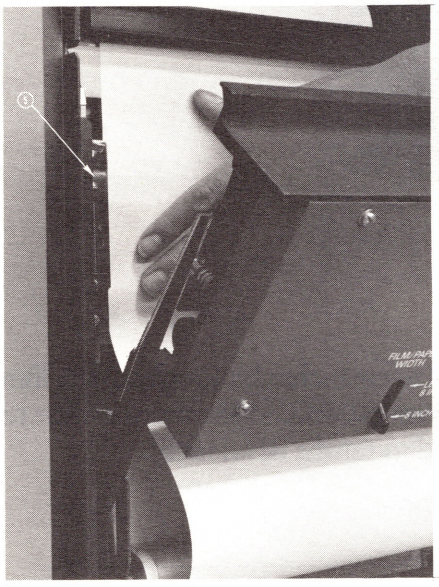


FIG. 5

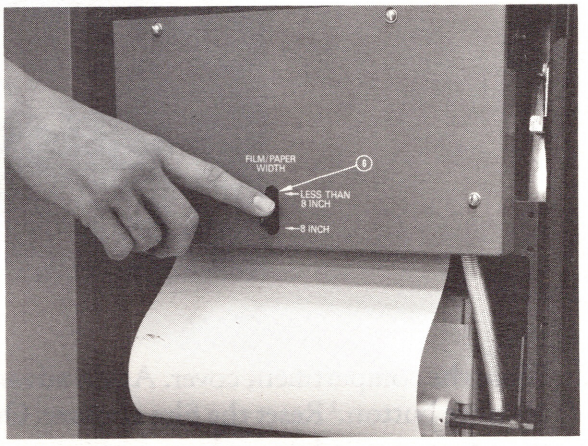


FIG. 6

5. PAPER GUIDE BAR
6. DRIVE RELEASE LEVER (newer EditWriter models do not have this lever)

10. Press FILM FEED to be sure that the material is advancing properly, and to eliminate any exposed material. Depending on the EditWriter model the FILM FEED button will either be in the cassette compartment or on the control panel above the keyboard (Fig. 7).

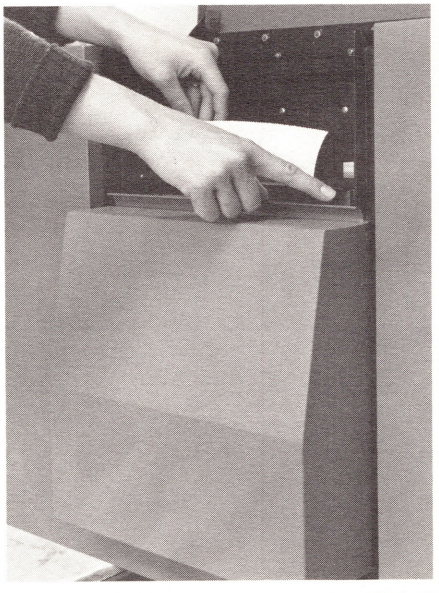


FIG. 7

11. Cut off the exposed paper (with the cutter) and install the receiving cassette between the guides in the upper compartment. The cassette opening should be face down over the paper feed slot (Fig. 8).

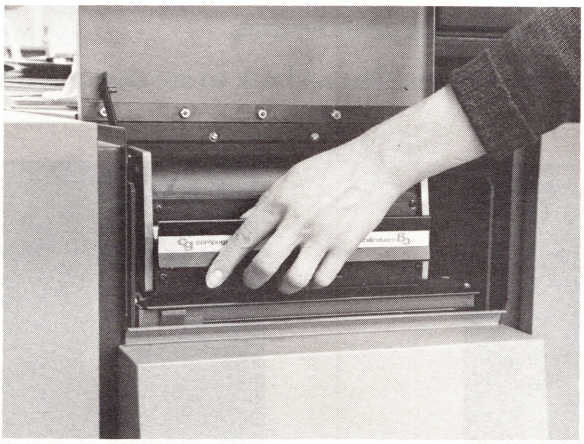


FIG. 8

12. Close the compartment cover. Again advance the material a few inches by touching the film advance button.[2] Reset the film counter. On newer EditWriter models, a film counter next to the advance switch provides a running count of paper used in tenths of an inch.
13. Press RESET to clear the "FILM" message before operation.

NOTE

The recommended amount of paper to be fed into a take-up cassette should not exceed 20 feet.

[2]If you have an EditWriter with the red film advance button inside the cassette compartment, be sure that you advance the photographic material before closing the compartment cover.

Typesetting Instructions

MCPO utilizes five coding sequences:

- Precedent, S (Set reference point)
- Precedent, Z (return to zero)
- Precedent, A, XXXX (Advance leading)
- Precedent, B, XXXX (Reverse leading)
- Precedent, X, (End lead program)

NOTE

Either PREC/UC or PREC/LC can be used in these command sequences. XXXX represents a four-digit point value.

Precedent, S

The keystrokes PREC, S activate the reverse lead program, advance the photographic paper two to four inches at the start of the job, and pull 14 inches of paper from the supply box into the paper transport. Also, PREC, S deactivates the film counter (on those models that apply). When MCPO is in use the photographic paper moves up and down in the paper transport. If the film counter were to record this movement (while no additional paper is actually drawn from the box), the amount of paper indicated to be left in the box would be inaccurate.

The PREC, S command "sets" (thus, the use of the letter "S") a reference or starting point for a headline or the first column of type. The paper will automatically return to this reference point to start subsequent columns or to position copy for ads, etc. In most instances, PREC, S should precede any return code or advance lead codes at the start of a job. However, it must come after the INIT (ϟ) symbol, since INIT acts like Reset and thus, deactivates the program.

Precedent, Z

After the required column depth has been reached by measuring vertical depth (using the measure depth function), the keystrokes PREC, Z should be input. PREC, Z returns the photographic material to zero (the baseline of the first line of column one) where the reference point was established.

Precedent, A, XXXX

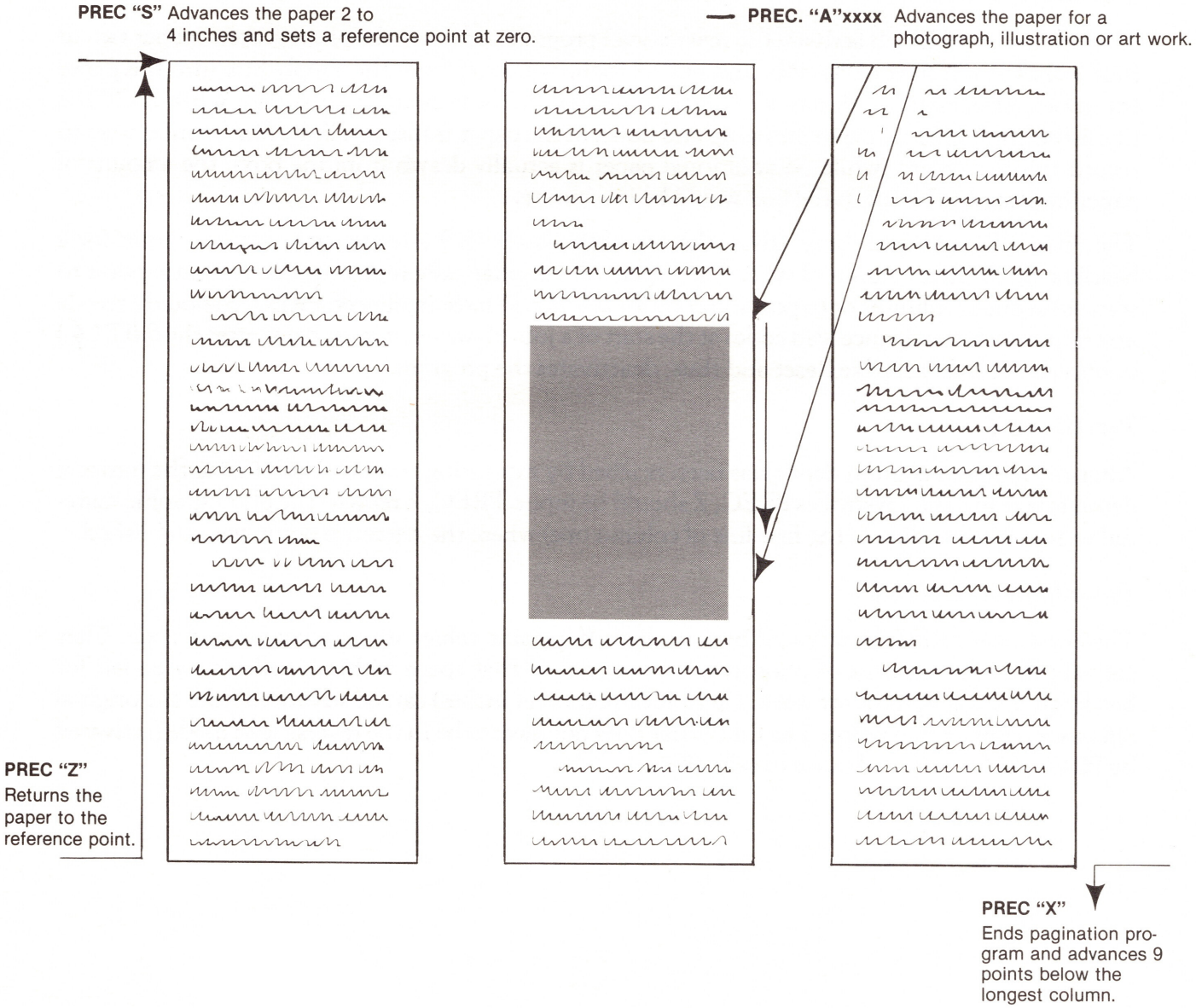
The keystrokes PREC, A followed by four digits (for point value) are an advance lead code. They activate the advancement of photographic material so that space within a galley may be left for headings, photographs or art work. Up to 1008 points (14 inches) can be advanced from the original reference point or zero point. The EditWriter does not have to be in the reverse lead mode (activated by PREC, S) for paper advance to take effect.

Precedent, B, XXXX

PREC, B followed by four digits has the opposite effect of PREC, A, reversing the line space (or backing up the paper in large increments) up to 14 inches. PREC, B is used primarily in area composition when the paper is to be reversed a known quantity for the positioning of copy. As with advance leading, reverse lead must not exceed the limits of a 14-inch page—the paper cannot be reversed beyond the original starting point (PREC, S). PREC, B, however, will not take effect unless the reverse lead program is activated with PREC, S.

Precedent, X

The keystrokes PREC, X terminate the reverse lead mode, reactivate the film counter and advance the paper nine points below the longest column on the page. This instruction does not change the horizontal positioning of the carriage. For example, if the last column of type had been set in tab position 3, PREC, X would not take the operator out of Tab 3. PREC, RETURN (Carriage Reset) is used to return the carriage to the left margin.



Pagination Procedure Without Headliner

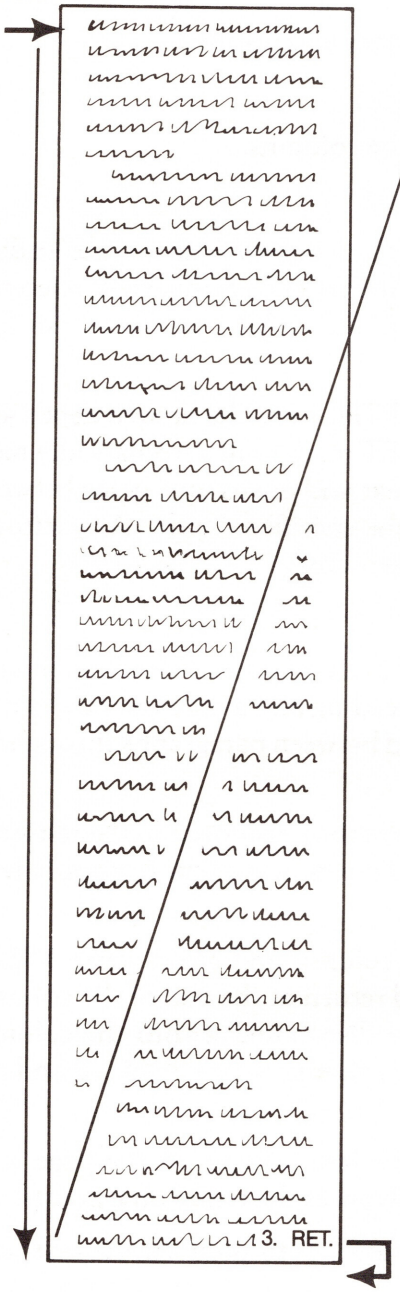
To create a mulit-column page:

1. Check that the file to be paginated has been edited, corrected, and justified.
2. Call the first record of the file to the screen.
3. Define the tabs necessary for the horizontal placement of the columns.
4. Place the cursor at the beginning of the copy to be paginated.
5. Strike INSERT followed by PREC, S, CALL TAB 1. PREC, S initiates the reverse leading program, advances the photographic material one to four inches and establishes a reference point from which the column depth will be calculated. CALL TAB 1 positions the first column of text.
6. Measure the appropriate column depth. Strike MEAS DEPTH, enter the desired depth and strike EXECUTE. The EditWriter (remaining in the INSERT mode) will automatically measure to the desired depth. The cursor moves through the text and opens up a space between two lines of copy, stopping after the last line that fits in the specified depth.[3] Any leftover space is indicated in the Parameter Line of the screen message area.
7. End the last line of the column with a hard return.
8. Check the screen message area for a depth count. If there is a remainder of leading, use the EditWriter vertical spacing features to enter this value of leading and assure the accuracy of depth. It is recommended that the remainder be distributed between paragraphs throughout the column.
9. Strike PREC, Z and then CALL TAB 2. PREC, Z will reverse the paper back to the reference point and CALL TAB will place the carriage in Tab 2 and position the text horizontally in the next column.
10. Place the cursor at the beginning of text in the second column and again strike MEAS DEPTH to calculate the length of column 2. Insert a hard return at the end of the column. Check the depth counter for leftover space that must be distributed within the column. Insert any remaining line space between paragraphs in the column. Strike PREC, Z and call the tab for the third column.
11. Repeat the procedure for all remaining columns. End the last column on the page with PREC, X. PREC, X ends the pagination procedure and advances the paper nine points.
12. To begin another page strike PREC, S. Call the appropriate tab to position the text, and repeat steps 6-12.
13. A Carriage Reset command will end the tab mode and return the carriage to the left margin.

[3]When measuring the depth of a galley of type, the measurement begins on the baseline of the first line and includes the return of the last line. If the leading is the same throughout the galley, the calculation will be perfect since the last line of space at the bottom will account for the character height of the first line. If leading varies, it is possible to get blank space at the bottom that exceeds the character height of the first line of type. For a detailed discussion of Measure Depth, refer to the 7500 tab, Advanced File Management.

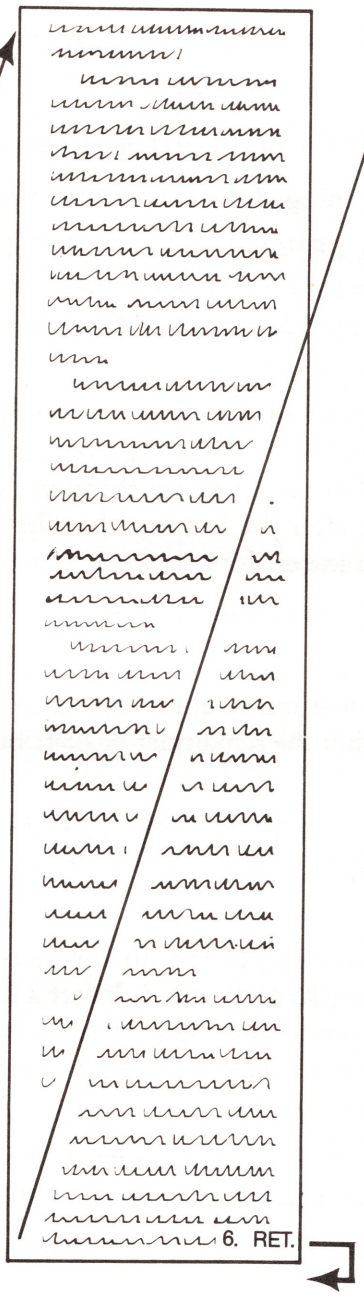
1. PREC "S"

2. MEASURE DEPTH



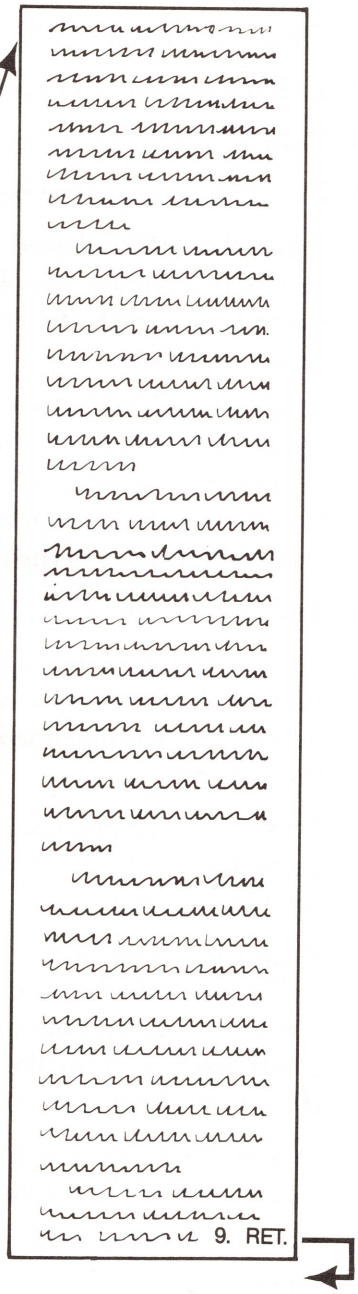
4. PREC "Z"
CALL TAB 2

5. MEASURE DEPTH



7. PREC "Z"
CALL TAB 3

8. MEASURE DEPTH



10. PREC "X"
CALL TAB 1

Pagination With Headlines

Even though a headline precedes the text, the pagination procedure is similar to the one (without headlines) just described. Note the use of PREC A, described below.

To create a multi-column page that begins with a heading:

1. Check that the file to be paginated has been edited, corrected and justified.
2. Define the tabs necessary for the horizontal placement of the copy.
3. Call the first record of the file.
4. Calculate the distance from the base of the heading to the base of the first line of text (in points). To calculate this value, add the line space values of the return codes from the heading to the text. Record this value for later reference. Or, when initially setting the galley, note the reading on the depth counter at the point where the text begins and record this value for later reference.
5. Place the cursor at the beginning of the title line.
6. Strike INSERT and then PREC, S, CALL TAB 1. PREC, S sets the reference on the baseline of the heading. CALL TAB positions the first column of text.
7. Move the cursor to the beginning of the text to be paginated.
8. Measure the appropriate column depth, strike MEAS DEPTH, enter the desired depth and strike EXECUTE.
9. End the last line of the column with a hard return.
10. Check the message line for the depth count. If there is a leading remainder, use the EditWriter vertical spacing features to enter this value and assure accuracy of the depth. It is recommended that the remainder be placed between heads or paragraphs.
11. Strike PREC, Z and CALL TAB 2. PREC, Z will reverse the paper back to the reference point. CALL TAB will position the text horizontally in the next column.
12. Strike PREC, A and enter four digits, the distance (calculated in step 4) in points between the title or headline and the first line of text. This will advance the paper past the heading and position the paper accurately to begin the second column of type.
13. Again measure depth and follow steps 11-13, calling the appropriate tabs and ending the page with PREC, X.

NOTE

In situations where a heading precedes the galley of type to be paginated, the starting point, (PREC, S) must be established at the baseline of the heading, not at the start of the copy. This is necessary because PREC, S automatically advances the paper two to four inches and, if positioned at the start of the copy, would separate the head from the text.

There's a new job market

PREC "S"
Reference set at the base of the heading.

PREC "A" xxxx
Advances paper past head to beginning of text.

PREC. "Z"
Reverses photographic paper to zero.

Call tab 2 for horizontal placement of column 2

PREC "X'"
Ends the pagination program and advances 9 points below the longest column.

Formatting (Save/Insert Block)

If page design is repetitious, the creation of formats will maximize the efficiency of the MCPO by decreasing keystrokes and simplifying the operator's job.

For example: One layout is consistently used throughout a book. Every page has three columns, 13½-picas wide with a one pica gutter in between. The formats for this page design can be simply stored in four blocks.

BLOCK 1: Establishes the parameters, sets the reference point (PREC, S) for the reverse lead program and calls Tab 1.

BLOCK 2: Reverses the paper back to the reference point (PREC, Z) for the start of column two and calls the second tab.

BLOCK 3: Ends column two, reverses the paper back to the zero reference and calls the third tab for the start of column three.

BLOCK 4: Ends column three, inserts the folio at the bottom of the page and ends the pagination program for the page with PREC, X.

NOTE

For more detailed instructions on Creating Formats and Save Block, refer to the 7500 tabs, Advanced File Management (Block Routines), and Appendix B, Formats.

Error Messages

A number of additional error messages are added with the MCPO. All messages appear in the Status Line at the top of the screen. Additional messages are:

1. RLO (Reverse Lead Option)—appears if an operator who does not have the Reverse Leading option attempts to call the program into use.
2. MARG (Margin Error)—appears if either the left or right margin of a line measure or tab length is exceeded at any time during the pagination procedure.
3. REFERENCE NOT SET—indicated when the return to zero instruction (PREC, Z) is called without first setting a reference point (PREC, S).
4. REFERENCE ALREADY SET—appears if an operator enters more than one reference instruction (PREC, S) for a page. Only one reference point can be established for each page.
5. TOO MANY COLUMNS—will appear if the operator tries to exceed the 10 column maximum allowable on the EditWriter.
6. COLUMN LENGTH EXCEEDED—indicates that the maximum column depth of 14 inches has been exceeded.
7. EXCEEDED REFERENCE—appears if a reverse command (PREC, B, XXXX) is used which reverses the paper past the original reference point established with PREC, S.

RULING OPTION

RULING OPTION

INTRODUCTION

The EditWriter Font Ruling Option offers an entirely new approach to forms production for the EditWriter II[1] series of phototypesetters. The addition of "ruling software" on an EditWriter II 2750, 7300, 7500, 7700 with the Multiple Column Positioning Option (MCPO),[2] or 7770 II[3] can simplify the production of complex ruled composition. This EditWriter enhancement provides an automated means of production for catalogues, organizational charts, business forms, tables, price lists, calendars, etc.—practically any typeset job requiring vertical and/or horizontal rules. With a minimum of steps and the entry of a few simple command keystrokes, the EditWriter will automatically insert the desired graphics to the dimensions specified by the operator.

This tab addresses the operating instructions and applications procedures which are unique to the Ruling Option. It is assumed that the user already has a thorough understanding of how to prepare copy on the EditWriter II (2750, 7300, 7500, 7700 or 7770) in use.[4] The text discusses in detail all aspects of the Ruling Option: individual rule elements, rule weights, font positioning, forms design, etc. It also includes a section with graphed layouts and corresponding typeset samples that will help the operator to visualize the procedure, and subsequently re-create the samples. A list of Error Messages and a keyboard layout for the special Font Ruling Filmstrip are included in the appendices.

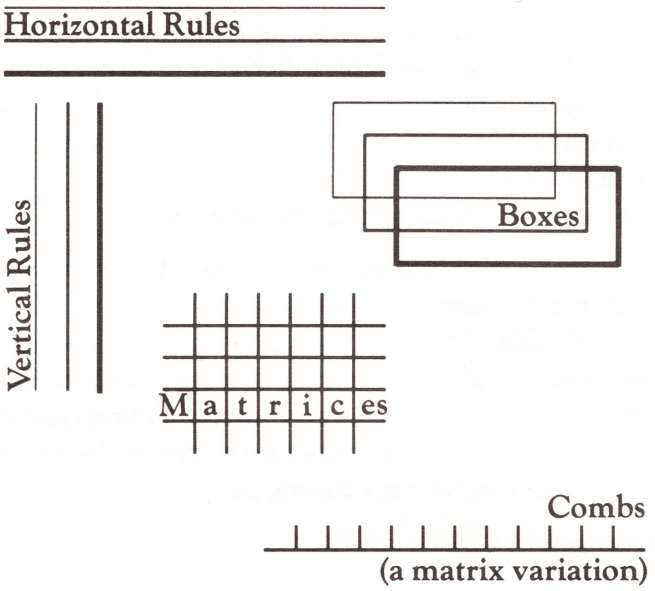
The contents have been arranged in a logical instructional order. It is therefore recommended that the operator study the text thoroughly, and typeset some of the illustrated samples prior to attempting any complicated forms or charts.

NOTE

For specific instructions on Creating a User Program Disk and programming the EditWriter II system in use refer to the EditWriter II tab in the first section of this manual.

[1] An EditWriter can easily be upgraded to an EditWriter II. This upgrade does not change the functioning of your EditWriter; it only allows for more flexibility in terms of the memory capacity.
[2] An EditWriter without MCPO can easily be retrofitted.
[3] Ruling software and MCPO are standard features of the EditWriter 7770 II.
[4] Basic operating procedures for the EditWriter may be found in the EditWriter Family Operator Training Manual.

The EditWriter II Font Ruling Option enables the EditWriter operator to automatically typeset four basic rule elements and several variations:



Each element is created with a simple command sequence. For example, the vertical rule may be drawn by striking only six keystrokes, PREC, V, and four digits (one to specify the weight of the rule and three to determine the depth). To insert a matrix (a grid of horizontal and vertical lines) the operator would simply keyboard PREC, M, and eight digits.

A rule command or a series of rule commands may be completed simply by keyboarding RETURN, END LINE (TAB/EL) or Carriage Reset (PREC/LC or PREC/UC, RETURN). If you are operating within a tab field you may choose to enter either CALL TAB, MULTIJUST, TAB/EL or TAB RETURN. Any one of these line ending commands will lock the rule sequence in place and subsequently activate the ruling mechanism.

Rule commands do not affect the parameters on the parameter line of the screen message area. The line length remaining and depth counter remain the same before and after the insertion of a rule.

The new EditWriter II Font Ruling Option offers many benefits to the user. This innovative ruling procedure requires fewer steps; consequently, there is less opportunity for confusion during the production cycle. Manual tasks such as hand ruling and paste-up have been eliminated. The result: a cleaner and more accurate form that can be permanently stored on disk and updated if necessary.

UNDERSTANDING THE RULING OPTION

The ruling option enables the user to set four basic rule elements. However, with simple changes in the command sequence, each element is capable of several variations. Before discussing the rule commands in detail, there are several important concepts that need to be explained.

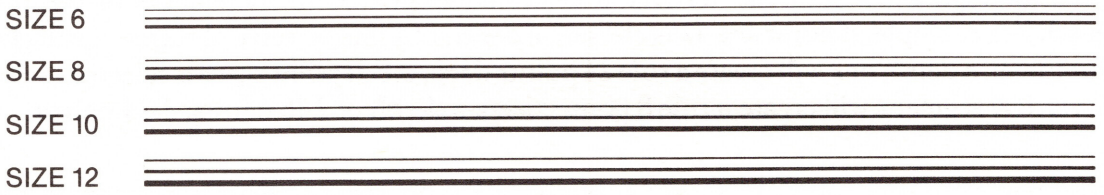
Font Ruling Filmstrip

The software program of the EditWriter II Font Ruling Option utilizes a special filmstrip containing a new ruling font (in one of the four tracks) as well as a matching width card. The ruling font is made up of rule segments and a variety of pi characters normally used in forms work. (See Appendix B in this section for details.) This new font has been precisely designed so that verticals and horizontals will align when rules, boxes, and matrices are drawn.

On the EditWriter II 7500, 7700 or 7770, the font ruling filmstrip must be mounted in the font position 1-4. The rule segments and pi characters are located on track 4. On the EditWriter II 7300, the font ruling filmstrip is mounted on font position 5-8. Track 2 of this filmstrip (font position 6) has been reserved for the rule segments and pi characters. It is not necessary, in either situation, for the operator to select the appropriate track for rule insertion. If a ruling command is keyboarded, the system automatically selects the ruling track, draws the specified rule (horizontal, matrix, etc.), and upon completion of the command, returns to the font position previously in use. However, in order to access the additional pi characters on the filmstrip, the operator must manually select the appropriate font position of the ruling filmstrip.

Rule Weight Values

A rule weight (or thickness) must be specified as part of every rule command sequence. Each point size has a choice of a rule weight "X," designated by a single-digit number, either 1, 2 or 3. A rule weight of 1 is considered fine, 2—medium and 3—heavy. Note the chart below:



NOTE

To insure consistent high quality of a ruled form, it is recommended that the EditWriter Ruling Option NOT be used in sizes larger than 12 point.

The digit 0 (zero) may also be chosen to designate a rule weight for horizontal rules.[5] Rule weight zero selects the normal baseline rule in the point size selected. The weight of the baseline rule will always fall somewhere between the fine (1) and medium (2) rule weights. An entry other than 0, 1, 2 or 3 will automatically default to an entry of 1.

The following chart outlines the actual rule weights for the selected point sizes. In point size 8, the weights of 1, 2 and 3 will give rules of 1/2 point, 1 point and 2 points respectively. A change in the point size will affect the rule weight proportionately. For example, selecting point size 12 will give rule weights of 3/4, 1 1/2 and 3 points respectively.

SIZE	WEIGHT 1	WEIGHT 2	WEIGHT 3[6]
6	3/8 pt.	3/4 pt.	1-1/2 pt.
8	1/2 pt.	1 pt.	2 pt.
12	3/4 pt.	1-1/2 pt.	3 pt.

Consider this: you are working in 6-point type and have specified your rule weight as 3, a heavy rule. However, you have now switched to 12 point and need to keep your ruling consistent. If you refer to the chart above, you will notice that a rule weight of 2 in point size 12 is 1 1/2 points, or equivalent to weight 3 in point size 6.

Depth Specifications

A vertical depth must be entered when drawing vertical rules, boxes and matrices. The depth is specified in number of lines or vertical segments. Each vertical line or segment is equal in height to the point size selected. When a ruling command is keyboarded the software will automatically match the line space (or leading) to equal the point size (set solid). However, after the rule is drawn, the EditWriter will automatically return to the line spacing that was designated prior to initiating the ruling function.

The vertical depth of any of the vertical graphics is designated in increments of the point size addressed. For example, if point size 12 is chosen, a depth of 1 line or vertical segment will give a rule 12 points deep, a depth of 2 will create a rule 24 points deep, etc. If point size 8 is selected, a depth of 1 line or vertical segment will create a rule 8 points deep, a depth of 2-16 points, 3-24 points.

[5]Because a horizontal rule of 0 (zero) weight does not always justify (see p. 21), its use as a rule weight is not necessarily recommended for all applications.
[6]Generally, rule weight three (3) is equal to 1/4 of the designated point size.

The total depth is obtained by stacking up as many small vertical rule segments as required to fit the rule depth. To determine the total depth, count the number of lines specified and multiply that number by the current point size. Perhaps it is easier to understand if you picture the depth as illustrated on the following pages.

In Figure A, shown on graph paper below, the point size specified is 6. In 6 point, it takes 2 segments to equal 1 pica. The measured depth is 7 picas or 84 points, thus requiring 14 lines or vertical segments in point size 6 to fill the job depth.

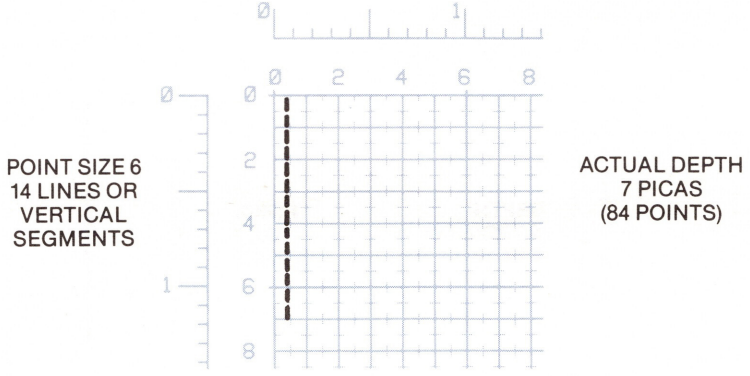


FIGURE A

In Figure B, point size 12 has been chosen. In 12 point, each line or vertical segment equals 1 pica. There are 9 vertical segments (lines) in 12 point. The depth measures 9 picas or 108 points.

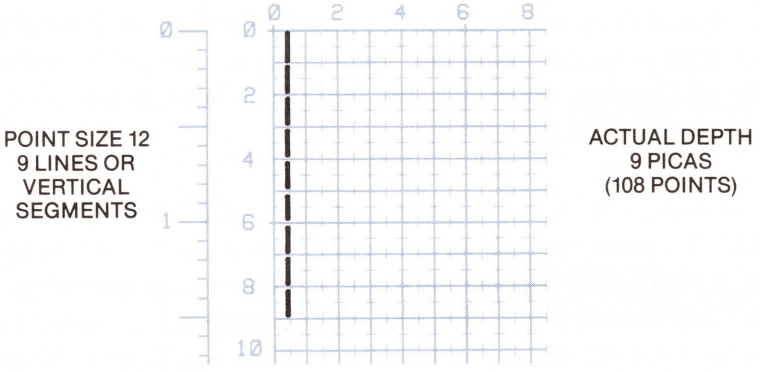


FIGURE B

In Figure C, a vertical rule depth of 90 points is desired. In point size 12 (see column 1 below) a vertical rule 90 points deep would require 7½ vertical segments or lines. 7½ is a complex number (a whole number and a fraction), and only whole numbers may be specified for depth values. As a result, 6-point type (see column 2) must be selected. In 6 point, a vertical rule 90 points deep requires 15 lines or vertical segments to fill the rule depth.

Remember too, that you are now working in 6-point type. Therefore, a heavier rule weight value must be selected to obtain a rule equivalent to a 12 point rule.

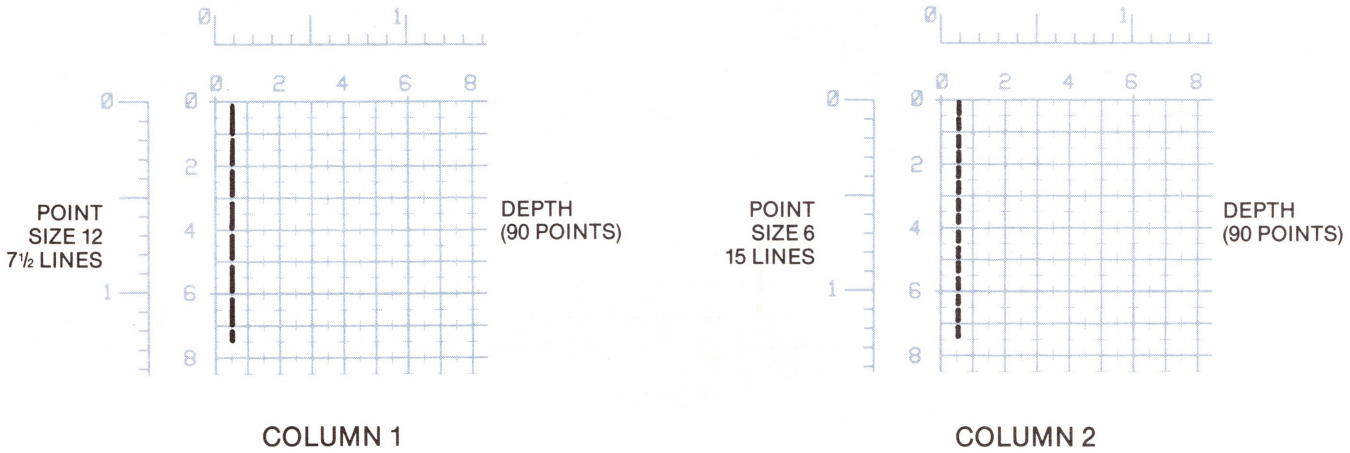


FIGURE C

The maximum depth that may be specified is that number of lines or vertical segments which will not exceed a length of 1000 points or 14 inches. Depending on the point size selected, this number will vary. For example, in 12 point, the maximum depth is 83 lines, in 6 point it would be 166 lines.

Set Reference

As in any other job utilizing the Multiple Column Positioning Option, the operator must set the reference point, PREC, S[7], prior to keyboarding ruling commands. Failure to do so results in the message "REFERENCE NOT SET" appearing in the screen message line when the first ruling command is entered. It is recommended that this precedent command be ended by keyboarding a line ending command, either TAB/EL (End Line) or PREC, Carriage Return. These commands do not advance the photographic material. Also, all ruled jobs and forms should end with a PREC, X, Carriage Return or a PREC, X, TAB RET command. The keystrokes PREC, X terminate the Reverse Leading mode for the rules, reactivate the film counter and advance the paper nine points. If necessary, refer to the Multiple Column Positioning Option (MCPO) tab for more information.

[7]The Precedent, S and Carriage Return command may be keyboarded in upper or lower case (PREC/UC or PREC/LC).

RULING COMMANDS

Insert Horizontal Rule

PRECEDENT,[8] HYPHEN, X

("X" represents the specified rule weight—1, 2 or 3)

Keystrokes: PR -

Screen Symbol: P R ↔

The Insert Horizontal Rule command automatically draws a horizontal rule with a length equal to the current line measure or tab field. Only three keystrokes are necessary to draw a horizontal rule: the Precedent key followed by a hyphen (the hyphen symbol [–] resembles a horizontal), followed by a rule weight "X," either 1—fine, 2—medium, or 3—heavy. Refer to pp. 17-18 for further explanation of rule weights and use of zero as a specified weight.

- The top of the rule is positioned exactly at the baseline with the body (or thickness) of the rule descending from the baseline.
- The weight of the horizontal increases with the point size.
- Rule weights 1, 2 and 3 are designed to completely fill the line measure; however, a rule with a specified weight of zero (0) may not necessarily justify. A horizontal with rule weight zero (0) will fill the line measure only if the line length is an even multiple of the point size. If the rule does not fill the measure excess space is inserted at the right margin.

Keystrokes:

PR - 0
PR - 1
PR - 2
PR - 3

SIZE 8

Keystrokes:

PR - 0
PR - 1
PR - 2
PR - 3

SIZE 12

[8]Either PREC/UC or PREC/LC can be keyboarded when entering rule commands.

- The horizontal rule differs from the Insert Character, Baseline Rule command. Even if there is copy on the same line as the rule (before and/or after it) the horizontal accessed with the Precedent Hyphen command will always start at the left margin of the specified line measure (or tab field) and will end at the right margin of that measure. It will not just fill in the extra space as with the Insert Character function.

Keystrokes:

INS CHAR / PR UC / 0	Name_____
PR / - / 0	Name_____
+1 PT SPACE / +1 PT SPACE / PR / - / 0 [9]	Name_____

- A horizontal rule can extend up to 45 picas.[10]
- Any commands subsequent to the horizontal rule are calculated from the point referenced prior to the origination of the ruling command sequence.

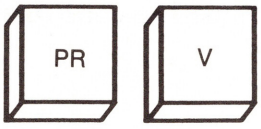
[9] To get an underline effect several points of leading were added prior to the Precedent command.

[10] The 7770 II can accommodate horizontal rules with an extended line length of up to 70 picas.

Insert Vertical Rule

PRECEDENT, V, X, YYY

("X" represents the specified rule weight, and "YYY" the depth of the rule.)

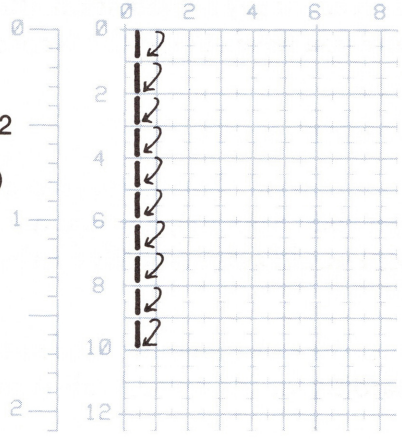
Keystrokes: 

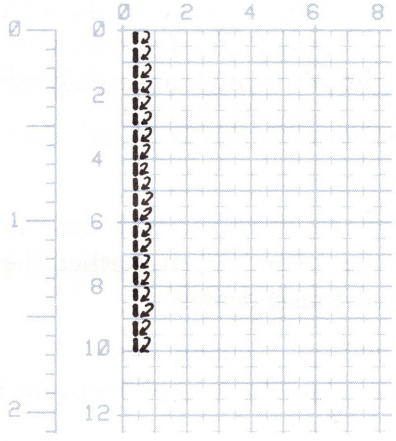
Screen Symbol: P R ↓

The Insert Vertical Rule command automatically draws a vertical rule in one of three designated weights (1—fine, 2—medium, 3—heavy), at any point in the job. Six keystrokes are necessary to draw a vertical rule: the Precedent key followed by the letter "V" (for Vertical), the specified rule weight "X" and a three-digit number "YYY" representing the depth.

- Vertical rules start at the baseline and descend to the specified depth.
- A vertical rule is a no width character; it does not subtract space from the line measure.
- The depth is specified by three digits, representing lines or vertical segments. For example, to insert a vertical rule 10 picas deep in point size 12, the operator would set a depth of 010 for the "YYY" value. (The first digit is specified as 0 if the depth is less than 100 increments.) That would mean 10 lines or vertical segments in point size 12 would be necessary to fill the job depth. To achieve the same depth in point size six, twice as many lines would be required. The specified depth or "YYY" value would change to 020. However, the actual depth in both instances would be the same, 120 points.

POINT SIZE 12
10 PICAS
(120 POINTS)
"YYY" = 010





POINT SIZE 6
10 PICAS
(120 POINTS)
"YYY" = 020

- Four methods may be used to determine the horizontal positioning of vertical rules within a given measure. The operator may decide to space over manually to position the vertical or, he may choose to utilize the quadding, tabbing or Insert Space commands.
- The program automatically draws the rule and returns the operator to the original starting point (the point referenced prior to the command sequence). The depth counter remains the same before and after the insertion of a vertical rule.
- If a rule is inserted which exceeds the depth limitation of the program, 1000 points or 14 inches, the message "□↓ ERROR" will show in the message line. (Refer to Appendix A, Error Messages at the end of this tab.)

Example 1:

What about vertical rules without an even pica or 1/2 pica measure?

Consider inserting a vertical rule 3 picas, 8 points deep; a total depth of 44 points. Apply the concept you've just learned. Four segments or lines in point size 11 can be used to construct a vertical 44 points deep.

The command sequence is: SZ, 11, PR, V, 2, 004

However, what if other rules in the form were inserted in 6 point or 12 point? A rule constructed in point size 11 would alter the consistency of the rules. In order to maintain rule weight consistency the operator must continue to use the same point sizes throughout the job. Thus, there is an alternative procedure for this kind of application.

First, according to the instructions explained above, insert a vertical rule 3 picas deep. Maintain the point size and rule weight used throughout the design. For this example, point size 12 and rule weight 2 were chosen.

The command sequence is: SZ, 12, PR, V, 2, 003

The EditWriter automatically inserts a rule 3 picas or 36 points deep, still 8 points short of the specified depth. Remember, also, that the EditWriter automatically returns you to the point of origin. Thus, use PREC, A, to advance down to the desired depth (3 picas, 8 points).

The command sequence is: PR, A, 0044[11]

Having reached the desired depth, manually select the ruling track and insert the correct "ending" vertical segment (cap height size) by keying a Shift or Precedent key combination. (Refer to pp. 60-62 Appendix B, Font Ruling Pi Track Characters.) Be sure you have chosen the vertical segment with the same rule weight as the original vertical rule.

The command sequence for the "ending" segment in weight 2 is: SHIFT 4

The "ending" segment starts at the baseline and extends upward. Therefore, even if this individual segment were longer than necessary (in this case, longer than 8 points), it would not cause the vertical rule to exceed the desired depth. Rather, the segment would automatically overlap the portion of the vertical rule previously drawn.

In this case the "ending" segment was exactly 8 points; the exact amount needed to complete the rule. Return to the original track specified; the keyboarding for the vertical rule is completed.

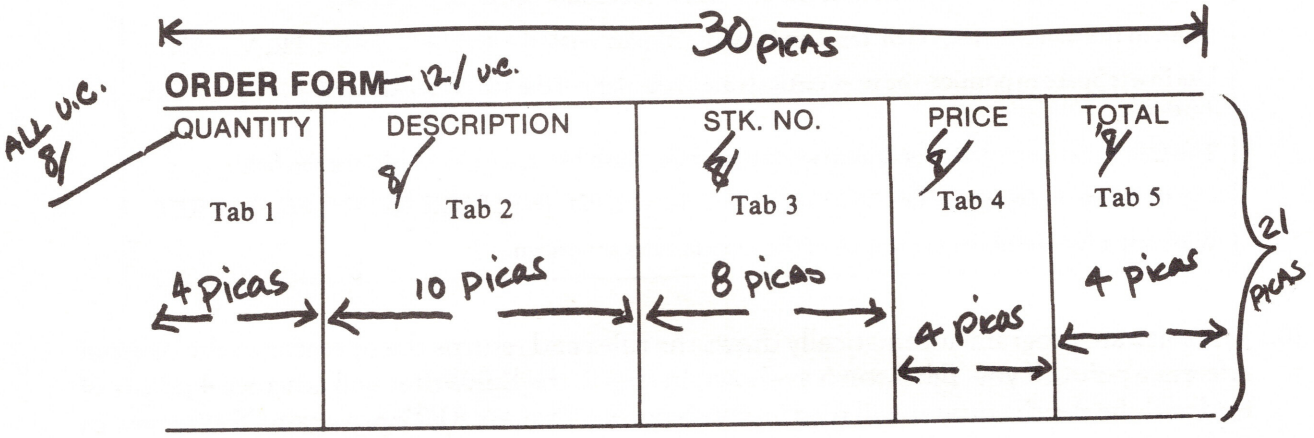
NOTE

After the "ending" rule segment has been inserted manually, check the depth counter. The PREC, A command has allowed for an accurate vertical depth readout; and the EditWriter photo unit is positioned at the bottom of the rule. (Remember that normally, when rules are inserted with the ruling program, the depth counter does not reflect the true vertical depth.) If necessary, return to the top of the job using MINUS LINE SPACE or PREC, B.

[11] Refer to the MCPO tab, p. 7 for an explanation of the use of Precedent, A.

Applying Horizontal & Vertical Rules

Now that you have learned how to draw horizontal and vertical rules, you will see how quickly and easily you can set the form below without an artist or additional paste-up. The sample form has been marked up for point size, tabs, line length, etc.



Command Sequence:

1. Initialize and set the parameters: point size 12, line space 040, choose a font, line length 30 picas (3000).
2. Set the reference: PREC, S.
   End the sequence with TAB/EL or PREC, RETURN (Carriage Reset.)
3. Set tabs as indicated.

   $^{T}_{B}$100000400J $^{T}_{B}$204001000J $^{T}_{B}$314000800J $^{T}_{B}$422000400J $^{T}_{B}$526000400J
4. A font and point size have already been chosen; type: "ORDER FORM," strike QL, RETURN. The leading was previously set at 040 to advance just the right amount of space before the horizontal rule. The depth counter should read 0:04, 4 points deep.
5. Insert a horizontal rule across the entire line measure:

   PREC, HYPHEN, 2, TAB/EL
6. CALL TAB 2 and insert a 21-pica vertical rule. The point size is 12; therefore, the depth is entered as 021 (21 vertical segments in point size 12 are needed to fill the depth).

   CALL TAB 2, PR, V, 2, 021, TAB/EL

   Because the Tab is justified, the vertical rule will automatically default Quad Left in the tab. Thus, we began with Tab 2 (rather than Tab 1) and several keystrokes were eliminated.
7. Look at the screen message area; you are now in Tab 3. Insert a vertical rule at the left margin of Tab 3:

   PR, V, 2, 021, TAB/EL
8. Continue to insert the vertical rules. Insert a vertical rule at the left margin of Tab 4:

   PR, V, 2, 021, TAB/EL

9. Insert a vertical rule at the left margin of Tab 5:

   PR, V, 2, 021, TAB RET

NOTE

To save several more keystrokes, note the alternative procedure below for steps 6-9.

Begin in the same manner. Call Tab 2 and insert a 21-pica vertical rule: CALL TAB 2, PR, V, 2, 021.

Use Insert Space to position the next vertical rule to the right of the tab field: INS SPACE, PR, V, 2, 021, TAB/EL.

The EditWriter automatically draws two vertical rules flush left and right within the tab field.

Use the same procedure in Tab 4: CALL TAB 4, PR, V, 2, 021, INS SPACE, PR, V, 2, 021, TAB RET.

With just a few simple keystrokes all of the vertical rules are drawn.

10. The software program automatically draws the rules and returns the operator to the original reference point. If you Tab Return as shown in step 9, the EditWriter will advance 4 points of lead and the depth counter will read 0:08 or 8 points. Depress RET once again. You're now in the right location to input the text.

11. Select point size 8, a Roman typeface, and call each respective tab column to input the copy. Quad Center the words in each column and end the sequence with Tab Return. Measure depth. The depth counter reads 1:02 (1 pica, 4 points).

12. Change line space to 480 (48 points) and add five returns or five plus line spaces to achieve the desired total depth—21:04. (Remember, you began the first vertical at 0:04 and the vertical depth was 21 picas.) Or, if you prefer, use the PREC, A (Advance Leading) command: PREC, A, 0240 (240 points) and continue with the next step.

13. Change to point size 12 and draw a horizontal rule across the complete measure:

    PR, HYPHEN, 2.

    (End sequence with an appropriate TAB/EL or PREC, RETURN (Carriage Reset).

14. End the keyboarding:

    PR, X, PREC, RETURN (Carriage Reset.)

    This step terminates the Reverse Leading mode, reactivates the film counter and advances the paper nine points.

NOTE

All Precedent commands in this sample can be keyboarded in upper or lower case.

Insert Box

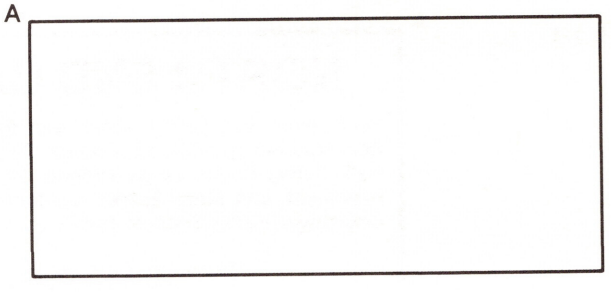
PRECEDENT, EM SPACE, X, YYY

("X" represents the rule weight, and "YYY" the depth of the box.)

Keystrokes: PR EM SPACE **Screen Symbol:** P R

The Insert Box command automatically draws a rectangle (or square) with a width equal to the established line measure or tab field, and a box depth specified in lines (each line being equal to the point size selected). There are six keystrokes necessary to implement the command sequence: the Precedent key followed by Em Space (the Em Space symbol resembles a box), one digit "X" representing the rule weight (either 1—fine, 2—medium, or 3—heavy), and three digits "YYY" determining the depth. The box depth is determined in the same way that the operator configures the depth of a vertical rule (refer to p. 23). The number of vertical segments or lines needed to fill the depth of the box must be specified.

- All boxes begin at the baseline and extend down from that point.
- The Insert Box command has no affect on the horizontal or vertical positioning of the copy.



After a box is drawn, the program automatically returns the operator to the starting point (A). Both the line length remaining and the depth counter indicate the parameters that were established previous to the insertion of the box.

- A box may not be wider than 45 picas[12] or longer than 14 inches or 1000 points (the amount of reversed leading that the MCPO feature allows). (Refer to Appendix A, in this section, Error Messages.)

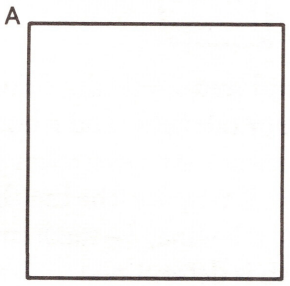
[12]The 7770 II can accommodate boxes and rules with an extended line length of up to 70 picas.

Example 1:

To insert a square box of 8 picas, the operator selects point size 12 and specifies a line measure or tab field of 8 picas.

Keystrokes:

PR EM 2 0 0 8

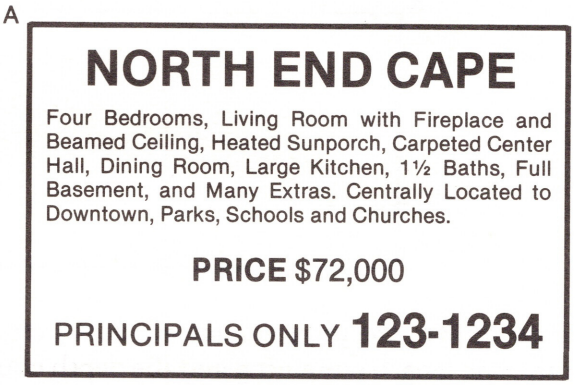


A square box is automatically drawn with a rule weight of 2 and a depth of 8 lines.

Example 2:

Keystrokes:

PR EM 3 0 1 1

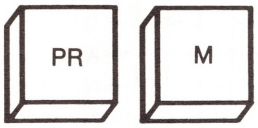


In the example above, the box around the ad is drawn within a 17-pica tab field. Rule weight 3, point size 12, and a depth of 11 lines or vertical segments is specified. The "A" represents the starting and ending point of the Insert Box command. After the initial box is drawn, the operator is automatically returned to the "A" position. At that point, the operator adds the correct amount of leading and then inserts the text within the confines of the box.

Insert Matrix

PRECEDENT, M, X, YYY, ZZ, NN

("X" represents the rule weight, "YYY" the depth of the grid, "ZZ" the number of white columns across, and "NN" the number of horizontal lines down.)

Keystrokes: 

Screen Symbol: P R

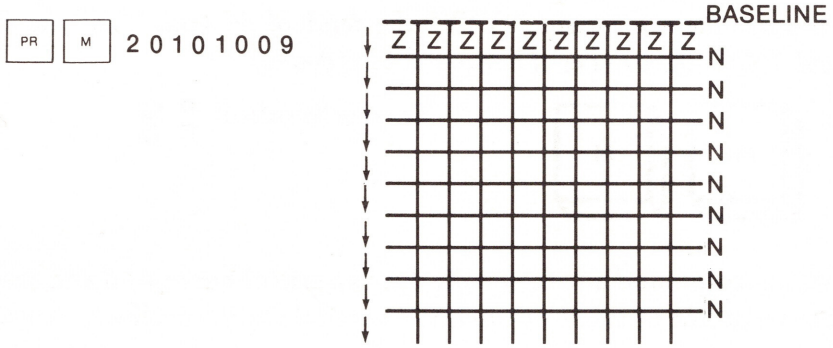
The Insert Matrix command automatically draws a grid of horizontal and vertical lines, with a width equal to the current line or tab measure and a vertical depth specified in segments or lines (each line being equal in size to the point size selected). Ten keystrokes are necessary to implement the Insert Matrix command: the Precedent key followed by the letter "M" for matrix, a one-digit number "X" to specify the rule weight (1—fine, 2—medium, 3—heavy), a three-digit number "YYY" to establish the vertical depth of the grid, a two-digit number "ZZ" (from 00-99) to specify the number of vertical white columns or panels across the matrix, and another two-digit number (from 00-99) "NN" to specify the number of horizontal lines that make up the grid.

- Matrix verticals start at and descend from the baseline, the exception being the comb effect, explained in detail on p. 34.
- The horizontal rules in a matrix are equally spaced down the depth of the matrix; they fall on each leading increment. Because the leading (line space) and point size are the same (set solid) as discussed previously, the spacing between horizontals will, in fact, be equal to the point size. (If however, the "NN" value is not equal to "YYY"−1, the entire matrix depth will not be covered by horizontal rules.)
- The number of horizontal lines specified cannot exceed the number of lines defining the depth of the vertical rules.
- The vertical lines will be spaced out equally to fill the line measure or tab field.
- As with the other rule commands, Insert Matrix does not affect the horizontal or the vertical positioning of the copy. The line length remaining and the depth counter are the same before and after the matrix insertion.
- An attempt to insert a matrix with a depth greater than 1000 points or 14 inches results in a message "□↓ ERROR." Refer to p. 59 Appendix A, Error Messages.

Several variations of the Insert Matrix command are shown on the following pages.

Example 1:

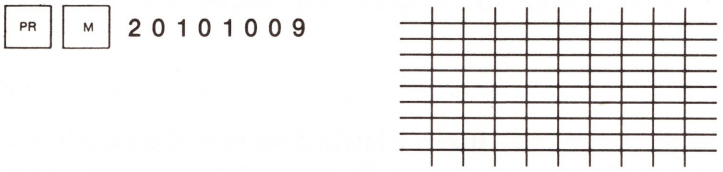
Keystrokes:



This example shows a 12-point matrix inserted on a 10-pica measure, 10 picas deep. The baseline (_____) in this illustration is not drawn as part of the Insert Matrix command. It is just a reference point from which the matrix verticals start at and descend from. Two (2), a medium weight, was chosen for the rule. Each arrow descending from the baseline, as pictured above, indicates one line or segment. Therefore, the depth value of "YYY" has been designated as 010. Each "Z" represents a vertical white column; there are ten (10) vertical white columns across. "N" represents the number of horizontal lines in the grid. In this example there are nine (9) horizontals indicated by two digits, or 09. This number "NN" should always be less than the specified depth "YYY." In the typical matrix configuration, the "NN" value will be one less than the "YYY" depth.

Example 2:

Keystrokes:



This example was set using the same keyboard sequence as the example above, except that the point size was changed to 6. Note that the vertical rule length as well as the space between the horizontal rules has been halved. Notice too, that the rule weight has changed proportionately even though it has been specified as two (2) in both examples.

Example 3:

Keystrokes:

PR M 2 0 0 2 1 2 0 1

This example, in point size 12, also illustrates the Insert Matrix command. The rule weight has been specified as 2, and the depth as 002. There are 12 vertical columns and 1 horizontal line, indicated by the last four digits.

Example 4:

Keystrokes:

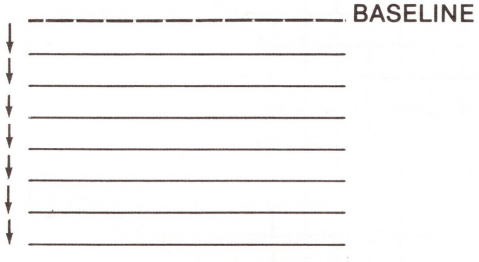
PR M 2 0 0 1 1 2 0 0

This example might not look like a matrix; however, don't be fooled! Note the keystrokes above. This variation of the matrix is constructed when the number of horizontal rules is set at 00. The point size is 12 and the rule weight is 3. The depth is indicated as 001. There are 12 vertical white columns (they have been numbered), and no horizontal lines.

Example 5:

Keystrokes:

PR M 1 0 0 7 0 1 0 7



This example, also in 12 point, appears to be a series of horizontal rules; however, it too is a variation of the Insert Matrix command. This particular type of matrix is constructed when the number of vertical columns is set at 01. Notice that the first horizontal rule in the example does not fall on the baseline. The amount of space between the baseline and the first horizontal rule is determined by the point size specified. As in the previous examples, each arrow indicates a line or vertical segment.

Example 6:

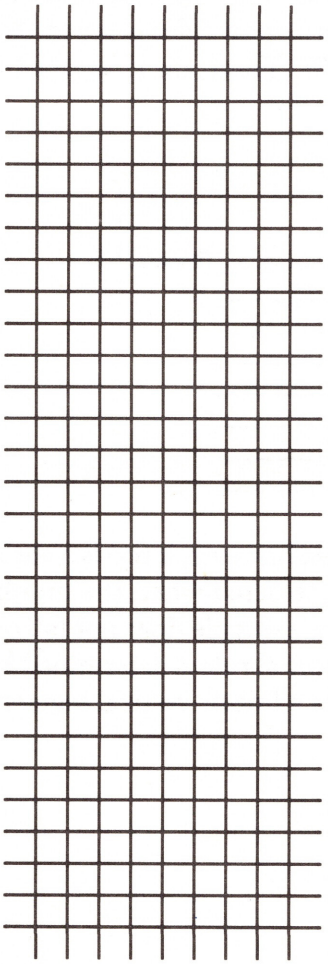
As an operator you'll discover that many jobs contain both graphics and text. When the ruled portion of a job is substantially deeper than the text portion, the following procedure should be used. It will insure that the reverse lead program will advance the photographic material beyond the vertical depth of the longest rule (in this particular case, a matrix).

According to the logic of the Ruling Option, graphic elements have no width or depth. Thus, after inserting a rule the photo unit of the EditWriter will automatically reposition itself at the starting point of the graphic. Both the line length remaining (LLR=) and the depth counter indicate the parameters that were established prior to the insertion of the ruling command. In other words, the EditWriter only references the point where the graphic starts, not where it ends.

The copy in the job below is three picas, eight points deep and the matrix is 30 picas deep. The job was initialized, tabs established, the matrix inserted (at a "0" depth indication), and the copy input.

Keystrokes:

[PR] [M] 2 0 3 0 1 0 2 9



The copy in this job is three picas, eight points deep and the matrix is 30 picas. To insure that enough paper is advanced PREC, 0314 is keyed at the completion of the copy block. This command will be read by the EditWriter and the depth counter will reflect the true vertical job depth.

To get an accurate vertical depth readout, the operator must insert a PREC, A command after the text has been entered. (PREC, A, an advance lead command, is followed by a four-digit number representing points. See the MCPO tab, p. 7 for a more detailed explanation.) To determine the value of PREC, A refer to the layout of your job and compare the depth of the longest vertical rule to the depth of the block of copy. The amount of points specified by PREC, A (in this example at least 314-PREC, A, 0314) should advance the operator past the vertical depth of the longest rule. Only after PREC, A is input will the depth counter reflect the true vertical depth of the job.

At the completion of the job (any ruled or multiple column job), PREC, X is keyed. PREC, X terminates the reverse lead mode and advances the photographic material nine points beyond the longest depth that was recorded on the vertical depth readout. If PREC, X were entered without a PREC, A command, the photographic material would have advanced only nine points past the depth of the copy block. Thus, the final typeset output might not have included the entire depth of the matrix.

NOTE

Remember that after the matrix is inserted the depth counter remains at "0" and the operator is automatically returned to the top of the job to input the text.

Insert Comb (a matrix variation)

PRECEDENT, M, X, YYY, ZZ, NN

("X" represents the rule weight, "YYY" is always specified as 000, "ZZ" is the number of vertical white columns across, and "NN" the number of horizontal lines.)

Keystrokes: PR M **Screen Symbol:** P R

The Insert Comb command is an additional feature of the matrix program. It allows the operator to create a horizontal rule with equally spaced vertical tick marks, each tick mark being equal to the capital letter height of the point size specified. The ten keystrokes necessary to implement the command are the same as for the Matrix command (described on p. 29); however, a value of 000 must be specified for the "YYY" depth. It does not matter how many "NN" horizontal lines are specified. The digits 01 are recommended because a comb has one horizontal baseline. Nonetheless, some operators may prefer to enter 00 because the "YYY" value has been specified with 0's. In actuality, any two digits from 00-99 may be entered. As long as the depth is designated as 000, a comb will automatically be typeset.

- When an Insert Comb command is keyboarded, the specified number of vertical rules are drawn extending upward from the baseline.

Example 1:

Keystrokes:

PR M 3 0 0 0 1 0 0 1

Example 2:

In order to fill in the edges of the comb, manually specify the ruling track or font. Then locate the vertical rule segment (with the correct rule weight) on the Font Ruling Pi Track Layout, Appendix B, p. 62. The vertical rule segment is a pi character on the ruling track. Select the vertical segment that starts at the baseline and extends upward. In this particular example, the keystrokes necessary to access the correct vertical segment are: SHIFT, 0

The operator must first remember to reestablish the tab field by calling the appropriate tab again (the same tab that the comb was drawn in). This step will automatically return the EditWriter to the proper position so that it can subsequently begin to insert the verticals. Using the Insert Space function, position the vertical segment on both margins: SHIFT, 0, INS SPACE, SHIFT, 0.

When this sequence has been completed the operator must manually return to the track that was originally specified.

Example 3:

The Insert Comb command shown below is commonly applied in forms for entering addresses, names and other identifying information.

|L|A|S|T| |N|A|M|E| |F|I|R|S|T| |N|A|M|E|

It was constructed by first inserting a comb and then filling in the edges as previously explained. To input the characters a one (1) pica floating tab was established. By calling the tab, using Multijust, and adjusting the leading and point size appropriately, the individual letters were inserted within the segments of the comb. (Refer to your EditWriter Family Manual for a more detailed explanation of these basic functions.)

Summary of Ruling Commands

Insert Horizontal Rule PRECEDENT, HYPHEN, X	X = weight of rule
Insert Vertical Rule PRECEDENT, V, X, YYY	X = weight of rule YYY = depth of rule
Insert Box PRECEDENT, EM, SPACE, X, YYY	X = weight of rule YYY = depth of box
Insert Matrix PRECEDENT, M, X, YYY, ZZ, NN	X = weight of rule YYY = depth of matrix ZZ = # of vertical white columns across NN = # of horizontal lines
Insert Comb (Matrix Variation) PRECEDENT, M, X, YYY, ZZ, NN	X = weight of rule YYY = depth of matrix, always 000 ZZ = # of vertical white columns across NN = # of horizontal lines

The samples below, exemplifying each of the rule commands (in each of the rule weights), have been set using a value of 12 for point size and leading (line space 120) and an 8-pica line measure. The letter "A" in each sample indicates the reference point. The Ruling Option will automatically return the operator to this reference point after drawing the rules.

Horizontal Rule 1:

PR – 1

A

Horizontal Rule 2:

PR – 2

A

Horizontal Rule 3:

PR – 3

A

Vertical Rule 1:

PR V 1 004

A A A

Vertical Rule 2:

PR V 2 004

A A A

Vertical Rule 3:

PR V 3 004

A A A

Box 1:

PR EM 1 003

A

Box 2:

PR EM 2 003

A

Box 3:

PR EM 3 003

A

Matrix 1:

PR M 1 003 05 02

A

Matrix 2:

PR M 2 003 05 02

A

Matrix 3:

PR M 3 003 05 02

A

Comb 1:

PR M 1 000 06 01

A

Comb 2:

PR M 2 000 06 01

A

Comb 3:

PR M 3 000 06 01

A

FORMS DESIGN

The design is the key step in the production of any job. By creating a clear and accurate design, the production of a form is greatly simplified. Note that this step is not a new requirement. In the past, the layout of the job was probably the responsibility of the artist.

Several tools are essential when designing a form:

- Graph paper (EditWriter Ruling Paper, Part No. 61936-001)
- A pencil
- An eraser
- A pica ruler

EditWriter Ruling Paper

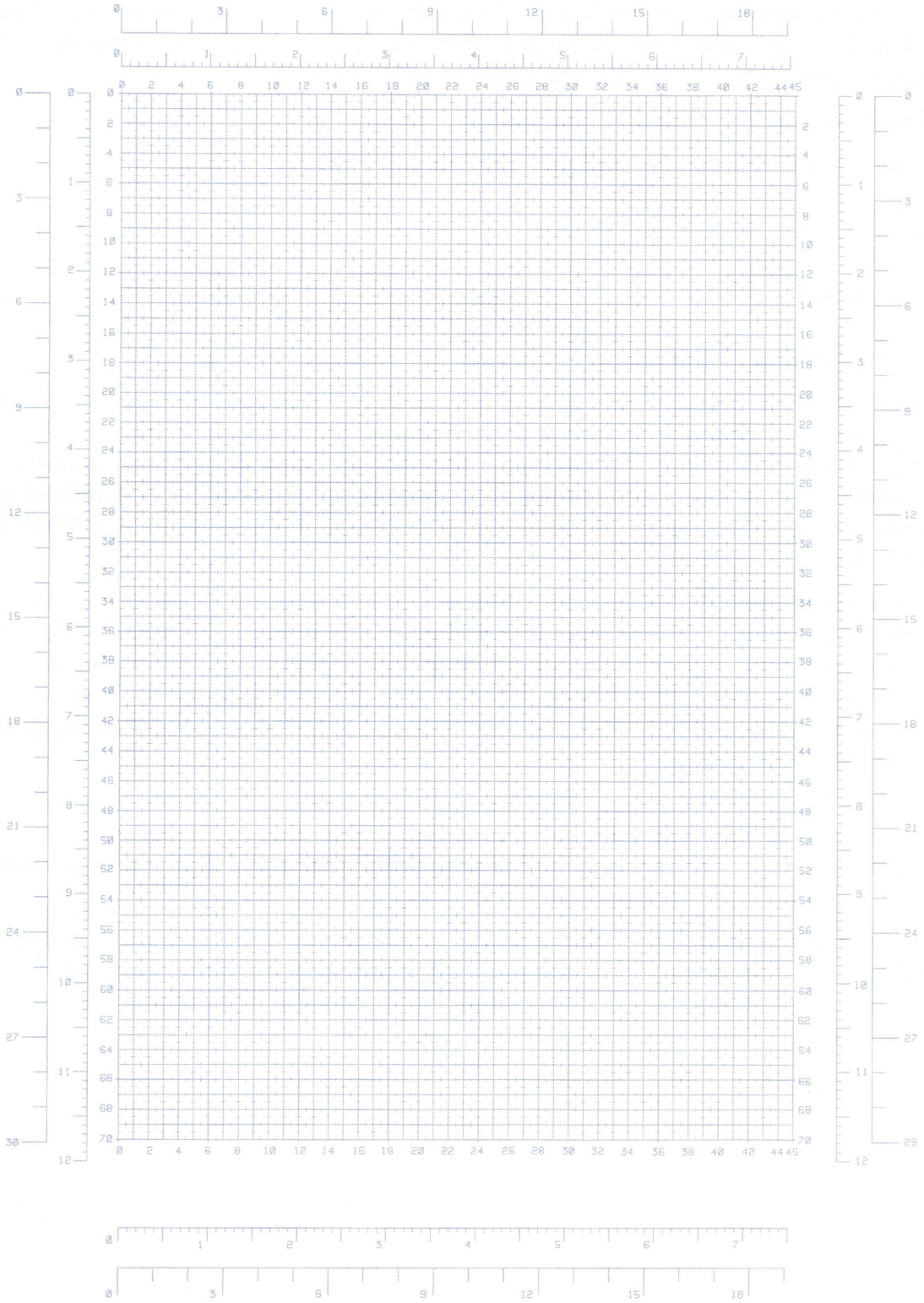
First, the forms design must be laid out on graph paper. However, measurements and calculations that would usually be required of the artist or the typesetter are no longer necessary. Compugraphic supplies EditWriter Ruling Paper that has been designed on an inch scale with horizontal and vertical pica and half-pica grids. Essentially, it looks like ordinary graph paper (11″ × 17″), printed on both sides in non-reproducible blue ink. It can be used to lay out jobs that are as wide as 70 picas and as deep as 45 picas.

On one side of the paper the grid has been designed for laying out rules that are in point size 6 or point size 12. One whole box area represents a 12-point rule segment and a half of that box area represents a 6-point rule segment. Looking at a sample of the paper on p. 38, you can easily see how two rule segments in point size 6 will be equal to one rule segment in point size 12. The "YYY" depth in point size 6 would be specified as 002, and in point size 12, 001. However, the actual depth would be equal to 1 pica in both point sizes.

On the reverse side of the paper (see p. 39) the grid has been designed for rules in 8-point increments. Each whole box is divided into three parts, each part representing a rule segment in point size 8. Three segments in point size 8 are equal to 2 picas in depth; the "YYY" depth value would be specified as 003.

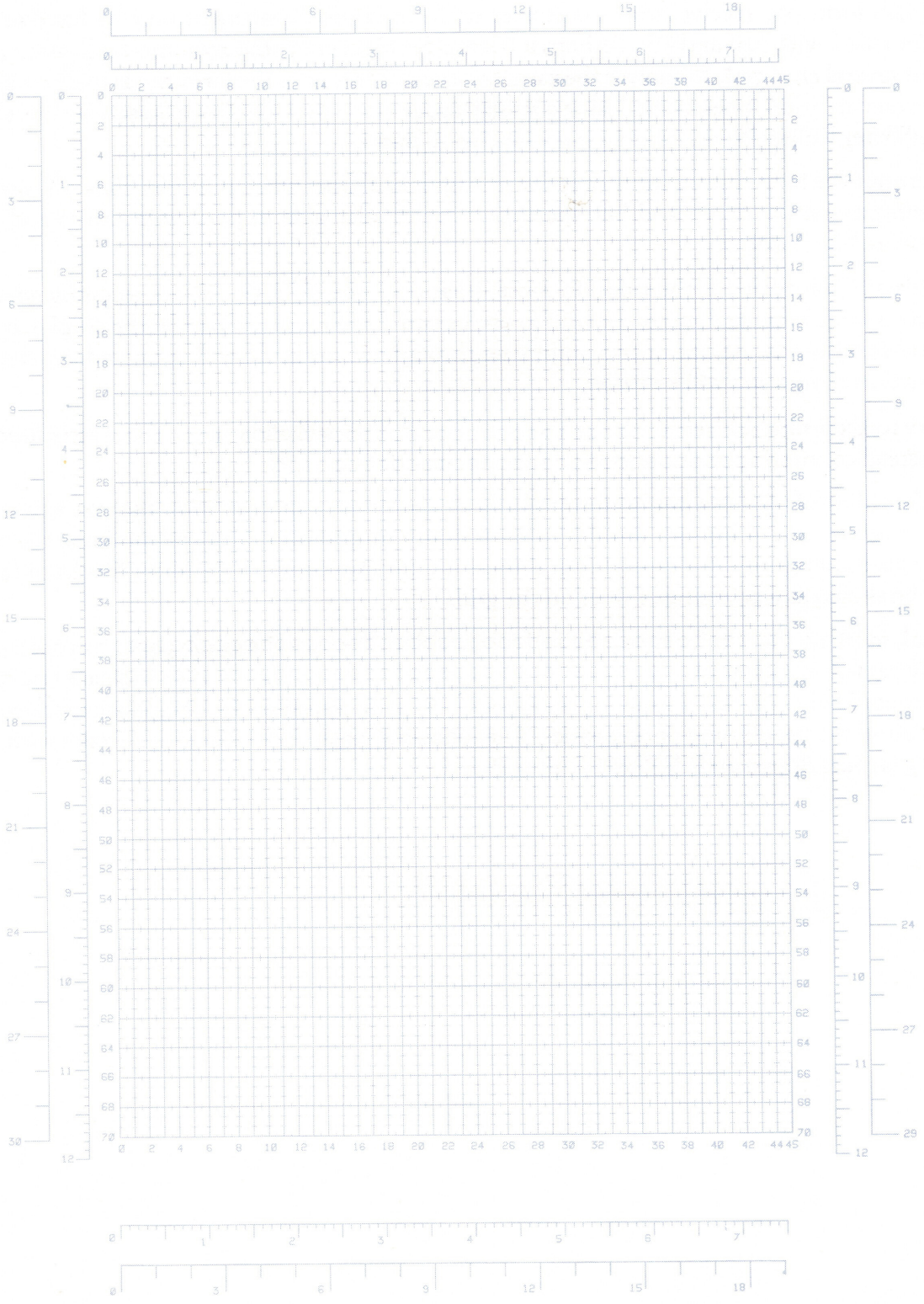
Notice that for either configuration, the vertical pica grid down the sides of the paper specifically aids in the calculation of the depth (line spacing or leading increments) and the placement of rules and copy. The horizontal pica grid across the top of the paper simplifies the establishment of a line measure and tab fields.

EDITWRITER RULING PAPER (6- and 12-point increments)



This grid has been reduced 55% to accommodate page makeup.

EDITWRITER RULING PAPER (8-point increments)



This grid has been reduced 55% to accommodate page makeup.

Layout

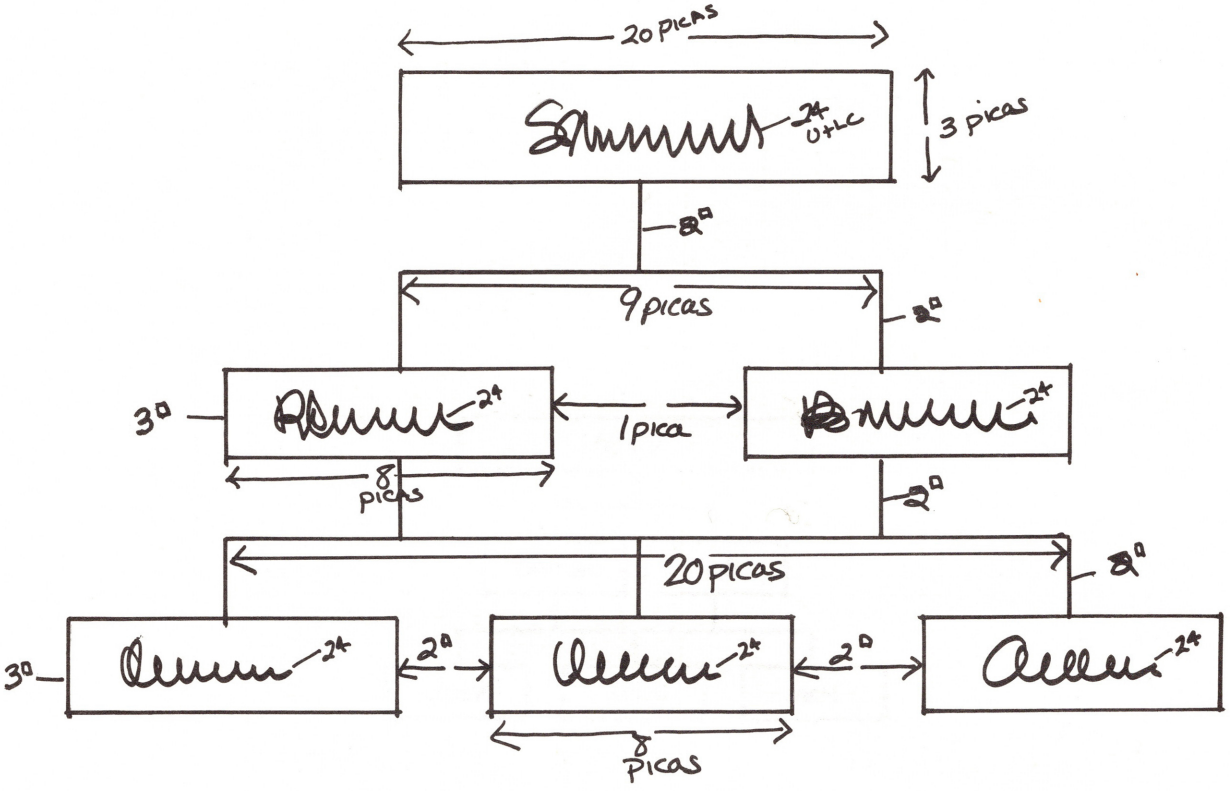
The rough form you receive from a customer or an in-house department may be handwritten in pencil or ruled with pen and ink. Perhaps it is simply typeset copy that requires duplication (with or without several changes). Whatever the case, an accurate layout of the form needs to be constructed before you can begin typesetting. Using a straight edge and a pencil with an eraser, lay out the form on EditWriter Ruling Paper, keeping the following in mind:

- Lay out the form lines directly over the grid (graphed) lines when possible. This will simplify determining the depth and line spacing. A layout also aids in positioning rules and copy during keyboarding.
- Select a point size for the rules. In most situations, sizes 6, 8 and 12 are recommended for forms work because they correspond to one or two divisions of the grid on the graph paper. If you consistently use one or two point sizes throughout the keyboarding procedure, the production of your job will be easier.
- Try to keep adjacent vertical columns equi-distant. This will allow use of the matrix function instead of entering multiple vertical rule commands (see p. 29).

Once the ruling of the form has been completed on the layout paper, position the text as it is shown on the rough sample. Whenever possible, place the copy on grid lines. This will minimize the number of line space changes during typesetting. If there is extensive copy on the form, blocks of text may simply be shown as a grouping of lines on the grid.

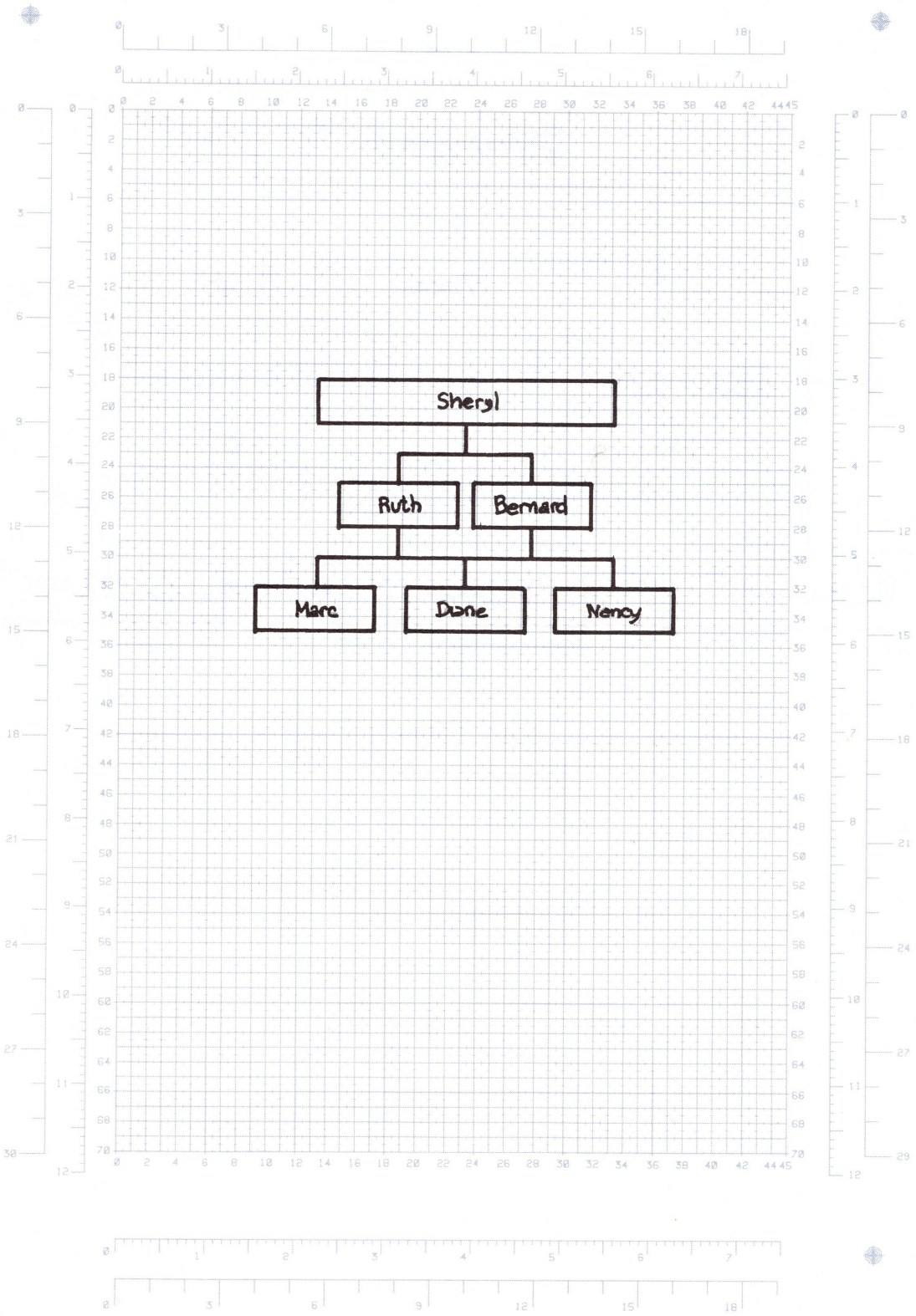
As usual, mark up the text for style, size and composition. Because the graph paper has been marked in easily readable gradations, horizontally and vertically, there is no need to indicate line lengths. They are easily discernible by studying the layout. The grids also allow for simple calculation of tabs, thus making the positioning of text easier. The following pages show two rough drafts with corresponding layouts drawn on EditWriter Ruling Paper.

Sample #1



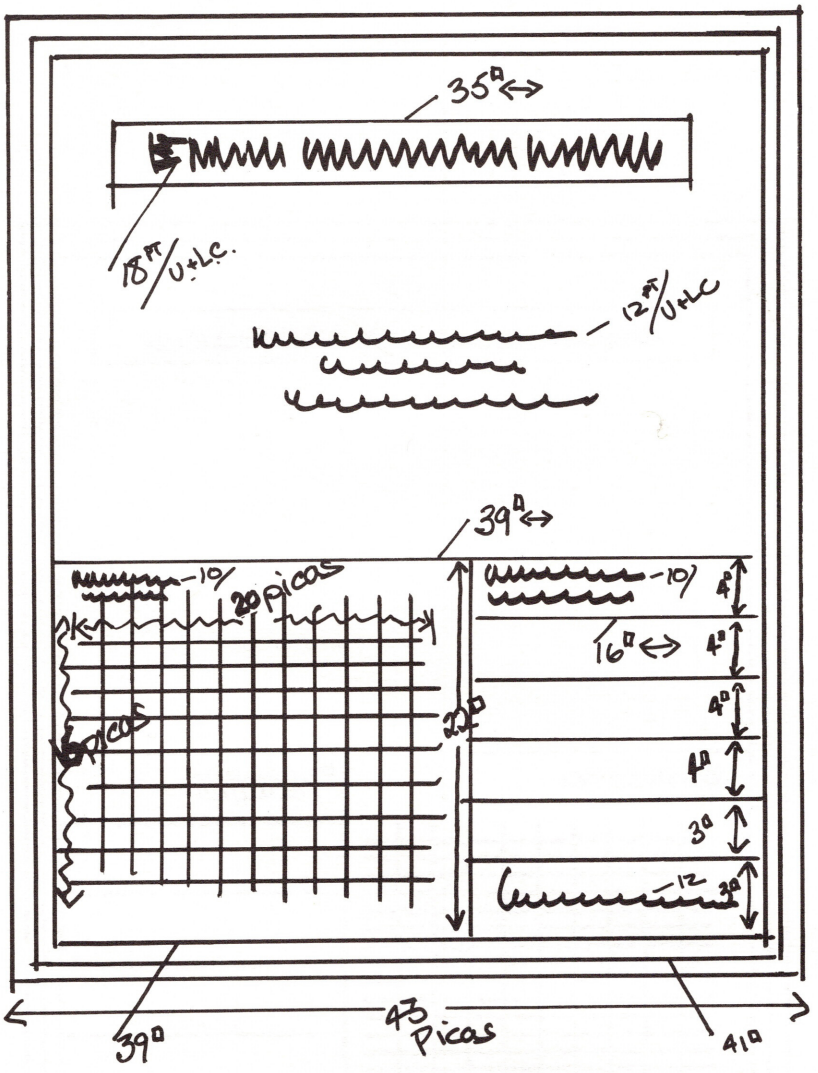
ROUGH DRAFT

Sample #1



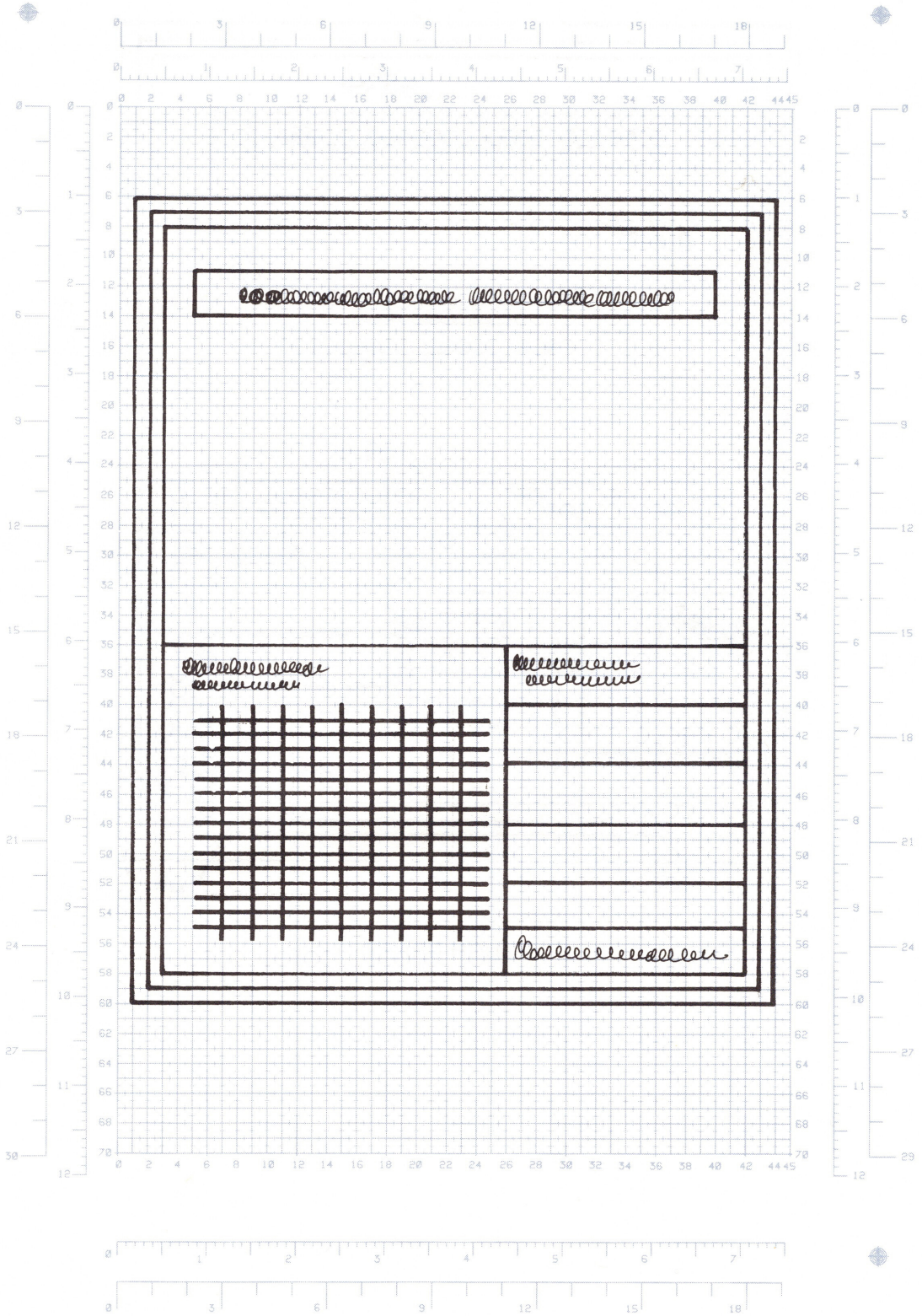
LAYOUT

Sample #2



ROUGH DRAFT

Sample #2



LAYOUT

FORMS PRODUCTION

The following pages provide a step-by-step outline of the keyboarding procedures that were used to typeset the "SALES ORDER FORM" that you see below. All of the ruling commands that you just learned have been applied to the production of this sample form.

Detailed instructions have been included so that you, as the operator, can step through the command sequence for each rule element. However, it has been taken for granted that the operator understands the EditWriter and basic phototypesetting techniques. Therefore, certain other directions may not be clearly specified for each step. Remember to consider the point sizes, style changes, line spacing, and quadding instructions throughout the design, to insure that all ruling and copy is positioned correctly.

Because there is not a substantial amount of text in this particular sample, the inputting of copy and rules was done concurrently. However, the operator may sometimes find it easier to first input the rules (in one record of the file), and then return to the start of the job (using PREC, Z) to input the text in the second record of the file.

To begin, make sure that you have the necessary tools: EditWriter Ruling Paper, a pencil with an eraser, and a pica ruler.

USE BALLPOINT PEN YOU ARE WRITING 6 COPIES

NONAME INC.
225 EAST 125th Street
Nowhere NY. 01234

Tel:(123) 456-7890
Twx: 3495847

SALES ORDER FORM

Customer Name :_____ Order No._____
Address :_____
City :_____ State:_____ Zip:_____
Phone :_____ Contact :_____

	ITEM STK. No.	DESCRIPTION	COLOR	QTY	INTERNAL USE ONLY	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

Salesperson:_____
Date Order Taken:_____
Processed By :_____
Date :_____
Expected Ship Date:_____
Form No. 263647-022a

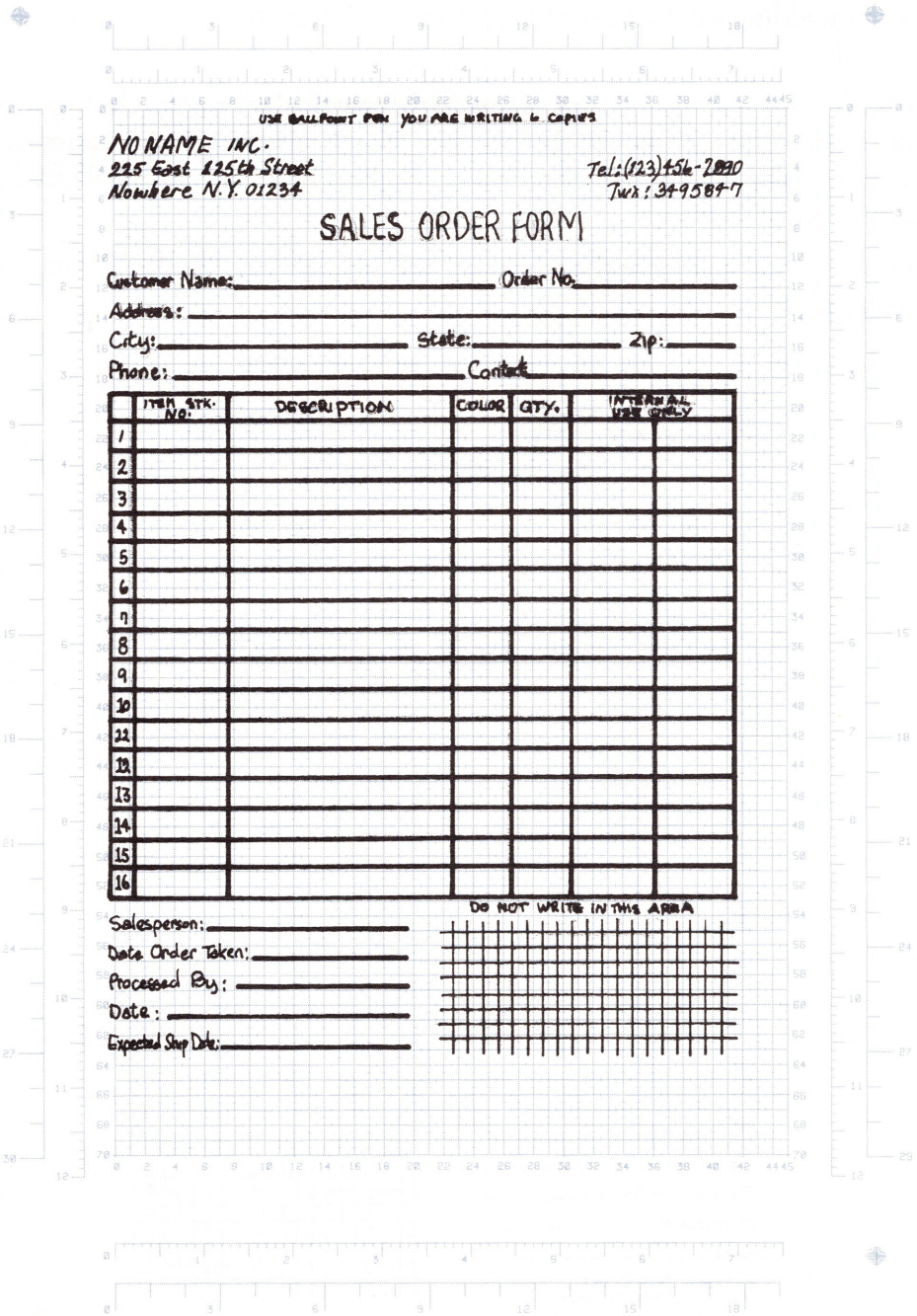
DO NOT WRITE IN THIS AREA

Layout

This is the layout of the "SALES ORDER FORM" on the previous page. It has been drawn on EditWriter Ruling Paper with the exact dimensions and proper placement of copy. Draw your layout first and then begin to keyboard the form. In order to compose the job, refer to your layout design.

NOTE

This artwork has been reduced to accommodate page makeup; however, the grid measurements on the ruling paper are accurate.



USE BALLPOINT PEN YOU ARE WRITING 6 COPIES

NO NAME INC.
225 East 125th Street
Nowhere N.Y. 01234

Tel: (123) 456-7890
Twx: 349587

SALES ORDER FORM

Customer Name: _____ Order No. _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Contact _____

	ITEM STK. NO.	DESCRIPTION	COLOR	QTY.	INTERNAL USE ONLY	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

Salesperson: _____
Date Order Taken: _____
Processed By: _____
Date: _____
Expected Ship Date: _____

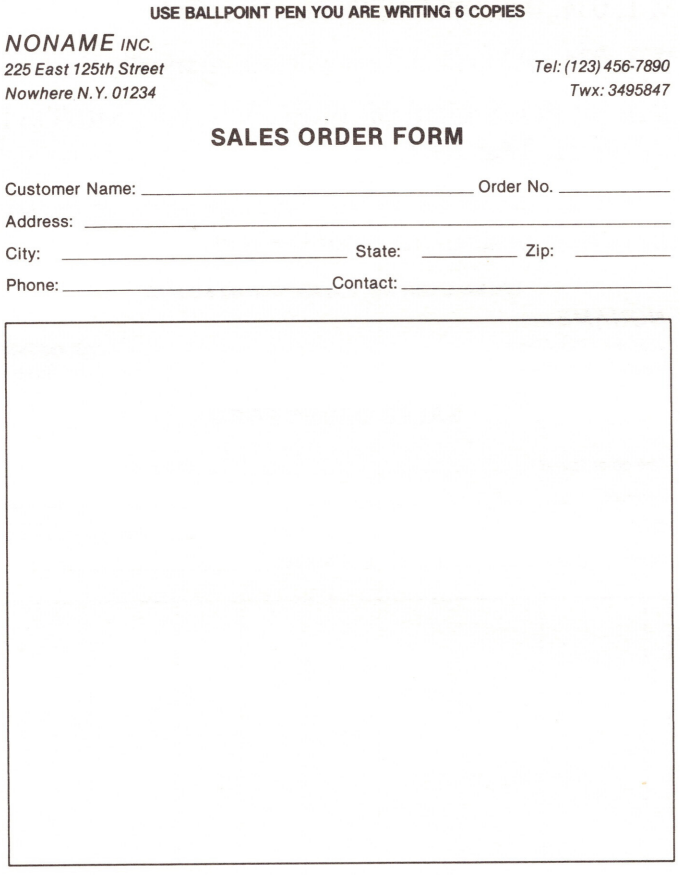
DO NOT WRITE IN THIS AREA

Keyboarding Procedure

Initialize the job; establish the parameters: SZ=10, LS=12.0, FT=3, LL=42:00AE. Key PREC, S to establish the reference point for the Reverse Leading Program (MCPO).

Keyboard the copy at the top of the form using the size, typeface and leading parameters established in the mark-up. Refer to the Depth Counter on the screen message line to insure the proper placement of the copy as established on the layout design.

Following the text input the Depth Counter will indicate D=19:00. Select point size 12 and key PREC, EM SPACE, 2, 034. This command sequence will allow the system to draw a box with a width equal to the overall line measure and a depth of thirty-four 12 point lines (or vertical segments). When the graphic is completed, the system will return the operator to the starting baseline of the box; the Depth Counter will remain unchanged.



Establish the following tabs:

Tab No.	Indent	Line Length	Position Code
Tab 1	0000	0106	J
Tab 2	0106	0606	J
Tab 3	0800	1500	J
Tab 4	2300	0400	J
Tab 5	2700	0400	J
Tab 6	3100	1100	J
Tab 7	3606	0606	J

Input the vertical rules in the following manner:

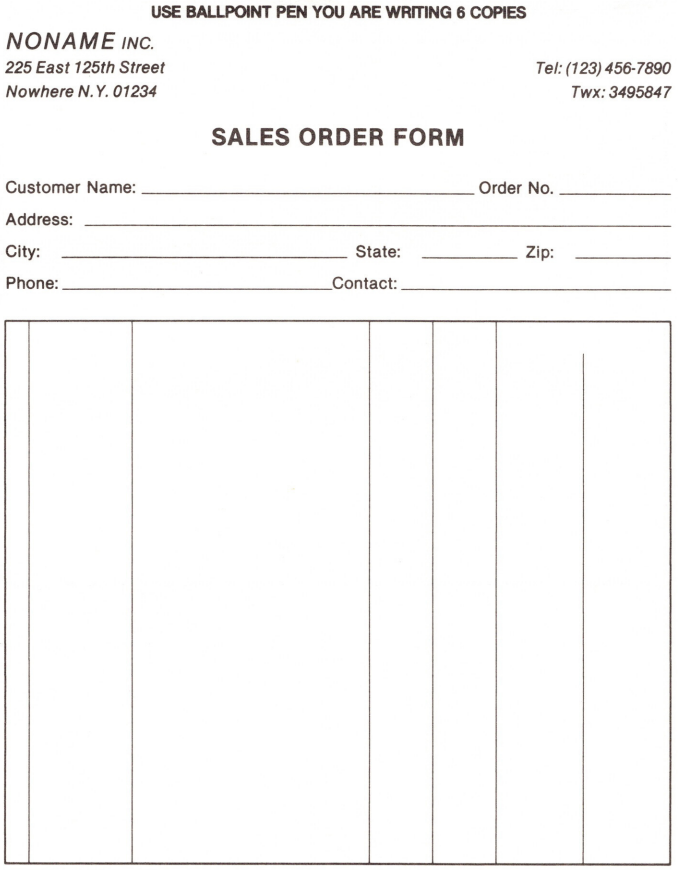
CALL TAB 2, PREC, V, 1, 034, INS SPACE, PREC, V, 1, 034

CALL TAB 4, PREC, V, 1, 034, INS SPACE, PREC, V, 1, 034

CALL TAB 6, PREC, V, 1, 034, (A Vertical Rule will automatically flush left)

CALL TAB 7, PLUS LINE SP, PLUS LINE SP, PREC,V, 1, 034, MINUS LINE SP, MINUS LINE SP, TAB RET.

The system draws each vertical rule in sequence. The last series of keystrokes will automatically return the operator to the correct position to input the text.



The Depth Counter reads D=20:00. Call the appropriate tabs to input the column headings; adjust the leading to position the type at the correct job depth as it is indicated on the layout grid. End the sequence with a TAB RET to return the system to a full line measure. At this time the Depth Counter should indicate a depth of D=21:00. Adjust the leading; if necessary, use the +(Plus) or −(Minus) 1 PT. SP key to obtain the correct depth.

USE BALLPOINT PEN YOU ARE WRITING 6 COPIES

NONAME INC.
225 East 125th Street
Nowhere N.Y. 01234

Tel: (123) 456-7890
Twx: 3495847

SALES ORDER FORM

Customer Name: _____ Order No. _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Contact: _____

	ITEM STK. NO.	DESCRIPTION	COLOR	QTY.	INTERNAL USE ONLY	

Input the horizontal rules across the entire measure, and the row of numbers in Tab 1 as follows:

Select SZ=12, LS=15.0 (150); insert a horizontal rule PREC, HYPHEN, 1, RET. Select SZ=08, LS=9.0(090). Input the number in the first column using the keyboard sequence CALL TAB 1, input a number (1-16), QC, TAB RET. Select SZ=12, LS=15.0 and insert the next horizontal rule. Return to SZ=08, LS=9.0 and continue the sequence above to input all horizontal rules and row numbers. The Depth Counter should indicate D=53:00 at the completion of the sequence.

USE BALLPOINT PEN YOU ARE WRITING 6 COPIES

NONAME INC.
225 East 125th Street
Nowhere N.Y. 01234

Tel: (123) 456-7890
Twx: 3495847

SALES ORDER FORM

Customer Name: _____ Order No. _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Contact: _____

	ITEM STK. NO.	DESCRIPTION	COLOR	QTY.	INTERNAL USE ONLY	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

Establish the following tabs:

Tab No.	Indent	Line Length	Position Code
Tab 1	0000	2000	J
Tab 2	2200	2000	J

Select SZ=12, LS=06.0 (060), strike RET twice to obtain the message D=54:00 displayed in the Depth Counter. CALL TAB 2 and set the line "DO NOT WRITE IN THIS AREA" followed by QC, RET. Adjust the point size if necessary. The Depth Counter now indicates D=54:06. Note the screen message area; you are still in Tab 2.

Be sure you're in SZ=12. Key PREC, M, 1, 009, 20, 08, TAB RET to insert the matrix. The key sequence will cause the system to draw a matrix with a rule weight of 1 and a depth of 9 picas. The matrix will be composed of twenty vertical columns which are divided evenly over the tab measure and eight horizontal rules spaced 12 points apart (falling on each leading increment). The system will form the matrix starting at the current baseline and will return to that baseline at the completion of the matrix. Because of the final Tab Return command, the Depth Counter will indicate 55:00 at the end of the sequence.

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NONAME INC.
225 East 125th Street
Nowhere N.Y. 01234

Tel: (123) 456-7890
Twx: 3495847

SALES ORDER FORM

Customer Name: _____ Order No. _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Contact: _____

	ITEM STK. NO.	DESCRIPTION	COLOR	QTY.	INTERNAL USE ONLY	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

DO NOT WRITE IN THIS AREA

CALL TAB 1, LS = 24.0 (240); input the remainder of the form in Tab 1. To stay within the tab field, end each line with a RET. For this portion of the form you would probably choose to use the Baseline Rule rather than the Horizontal Rule command. Observe the Depth Counter to insure proper placement of the text as indicated on the layout grid. Key PREC, X, Carriage Reset.

USE BALLPOINT PEN YOU ARE WRITING 6 COPIES

NONAME INC.
225 East 125th Street
Nowhere N.Y. 01234

Tel: (123) 456-7890
Twx: 3495847

SALES ORDER FORM

Customer Name: _____ Order No. _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Contact: _____

	ITEM STK. NO.	DESCRIPTION	COLOR	QTY.	INTERNAL USE ONLY	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

Salesperson: _____

Date Order Taken: _____

Processed By: _____

Date: _____

Expected Ship Date: _____

FORM NO. 263647-022a

DO NOT WRITE IN THIS AREA

This completes the keyboarding sequence for the "SALES ORDER FORM". The job is now ready to be sent to the photo unit for typesetting.

NOTE

If you've encountered specific problems during the keyboarding procedure, review the appropriate pages in the manual. However, if you're quite sure that you've mastered all of the rule commands, refer to the sample forms beginning on the next page and typeset some of the samples on your own. Remember that a clear and accurate layout design will greatly simplify the keyboarding.

The ruled forms on pages 53 through 58 have been typeset with the EditWriter Ruling Option. Study each sample form carefully to determine which rule elements are involved. Before you begin keyboarding, create a layout design on EditWriter Ruling Paper and mark it up accordingly (determining size, leading, parameters, etc.).

Sample #1

CONTRACT NO.	NAME OF ACCOUNT	NUMBER

Sample #2

Material Issue/Credit

ORIGINATOR	APPROVAL	ISSUED BY	RECEIVED BY

TRANSFER FROM ACCT/MO	TRANSFER FROM DEPT	RECEIVED DATE	TRANSFER TO ACCT/MO	TRANSFER TO DEPT	ISSUE DATE

RECV'G LOC TRAN	CODE	LOC		ISSUE LOC TRAN	CODE	LOC	

PART NUMBER		LINE ITEM	DESCRIPTION	QTY REQUEST	UNIT OF MEAS	QTY ISSUED	QTY RECEIVED

RECEIVING LOCATION D/P COPY - SEND WITH MATERIAL

Sample #3

MR. B'S RENTALS

"ONE PIECE OR A HOUSEFUL"

Ph. 622-1065 2432 E. 22nd Street

TUCSON, ARIZONA 85713

Customer's Order No._____ Date_____ 19____

Name

Address

SOLD BY	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RETD	PAID OUT	

QUAN.	DESCRIPTION	PRICE	AMOUNT	

Sample #4

STATION MANPOWER TIME SHEET

OVERTIME REQUIREMENTS	CITY

EMPLOYEE (SIGNATURE VERIFIES HOURS WORKED)		fri sat sun mon	sat sun mon tue	sun mon tue wed	mon tue wed thu
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
NAME: SIGNATURE:					
TOTAL ATTENDANT HOURS					
STATION MANAGER'S HOURS					
ACTUAL HOURS WORKED					
AUTHORIZED HOURS					

Sample #5

MANAGER'S PLAN

Compugraphic Corporation

NAME _____

DISTRICT _____

WEEK ENDING _____

DAY	TRAVELED WITH	OBJECTIVES	ACCOMPLISHMENTS
MON			
TUE			
WED			
THUR			
FRI			
W/E			

Sample #6

FILL IN ALL BLUE SHADED AREAS

PURCHASE REQUISITION

SUGGESTED VENDOR

DELIVER TO

INVOICE TO BE APPROVED BY

REQUISITION DATE

P.O. NUMBER	DATE	PAGE NO.

PURCHASE ORDER

TAX CODE (E) TAX EXEMPT PER CER. NO. 042-271-862

(T) SUBJECT TO MASS. STATE TAX

TERMS OF PAYMENT

("X")
CONFIRMING ORDER DATE TO:

SHIP TO LOCATION NUMBER INDICTATED BELOW

1. Building A
2. Building B
3. Building C
4. Building D
5. Building E

SHIP VIA FOB

DATE REQUIRED

ITEM	QUANTITY	UM	DRAWING NO.	REVISION NO.	DESCRIPTION	ESTIMATED	ACTUAL	ACCOUNT NO.	DEPT.

UNIT OF MEASURE CODES													
	BAG	BG	CARTON	CT	DOZEN	DZ	GROSS	GR	OUNCE	OZ	REAM	RM	SQ. YD.
	BARREL	BL	CASE	CA	DRUM	D.	HUNDRED	HO	PACKAGE	PG	ROLL	RL	THOUSAND
	BOARD FOOT	BF	CENTIMET.	CM	EACH	EA	INCH	IN	PAIR	PR	SET	ST	TON
	BOTTLE	BT	CUBIC FT.	CF	FLUID OZ.	FO	KILOGRAM	KG	PIECE	PC	SHEET	SH	TROY OZ.
	BOXES	BX	CUBIC YD.	CY	FOOT	FT	LINEAL YD.	LY	PINT	PT	SLEEVE	SV	TUBE
	CAN	CN	CYLINDER	CL	GALLON	GL	LOT	LT	POUND	LB	FOOT	SF	UNIT
	CARD	CD	DELDRUM	DL	GRAM	GM	METER	MT	QUART	QT	INCH	SI	YARD

BUYER'S SIGNATURE

INVOICE IN DUPLICATE TO:

TAX STATUS INFORMATION

	YES	NO
1. WILL THE ABOVE ITEMS BE PUT INTO OUR PRODUCT AND SOLD TO OUR CUSTOMERS?	☐	☐
2. WILL THE ABOVE ITEMS BE USED DIRECTLY IN THE MANUFACTURING PROCESS?	☐	☐

TOTAL ESTIMATED VALUE

AUTHORIZED REQUISITIONER	... TO $200
DEPARTMENT HEAD	... TO $500
EXECUTIVE V.P.	...OVER $500

APPENDIX A—Error Messages

□ ↓ ERROR

Appears if the "YYY" depth of the vertical rule, box or matrix is equal to or greater than 1000 points or 14 inches. Depending on the point size selected, the maximum depth of a rule may vary. For example, in 12 point the maximum depth is 83 lines, in 6 point—166 lines.

IBMO EXCEEDED LIMIT

This message can appear for several different reasons:

- The number of characters set in an individual line are more than the capacity of the line buffer memory.
- The number of ruling commands in a record are too large. To break a record into smaller records, use INS FILE. (Refer to the Advanced File Management tab, pp. 97-98.)
- A single ruling command has created too many rules, or too many ruling commands have been specified without using a line ending code. This can be caused by a single large Insert Matrix command (more than 6,000 keystrokes) or multiple long vertical rules spaced within a given line measure using Insert Space. Break the matrix command down into a series of smaller commands to achieve the same purpose or use tabs to decrease the number of vertical rule commands between line ending codes.

PHOTO UNIT BUSY

May occur when a file containing a large number of ruling commands or a large file record without ruling commands is transferred to the photo unit to be typeset. This will not affect the normal system operation; however, the operator may not be able to send additional files to the photo unit queue until the message clears.

REFERENCE NOT SET

Indicates that the MCPO reference PREC, S has not been set previous to the input of a ruling command sequence.

2 ⁄ ERROR

Occurs on initial power-up of system. This message indicates a service problem.

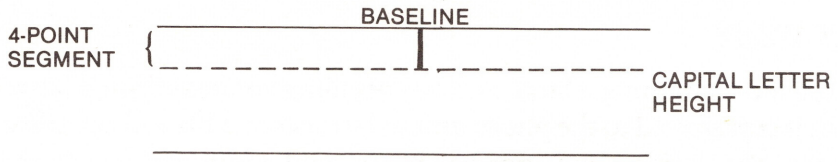
NOTE

These Error Messages are specific to all EditWriter II's with the Ruling Option and the 7770 II. Additional Error Messages pertaining to MCPO can be found on p. 14 of the Options section.

APPENDIX B—Font Ruling Pi Track Characters

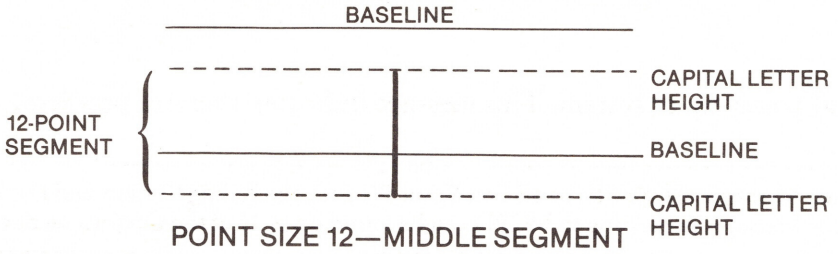
An explanation of the rule segments on the Ruling Keyboard Layout, p. 62, is shown below. Each key that requires an explanation has been marked with an arrow for easy recognition. (See p. 17 for more detailed information on Font Ruling Filmstrips.)

1. The BLR (Baseline Rule, PREC/UC, ZERO) serves the same function as it does on the 501 or 502 keyboard layouts.
2. The keys necessary to access horizontal rules are noted with an upper case H followed by either numbers 1, 2, or 3 indicating the rule weight.
   - H1 = Horizontal Rule segment, weight 1, fine
   - H2 = Horizontal Rule segment, weight 2, medium
   - H3 = Horizontal Rule segment, weight 3, heavy
3. A vertical rule is made up of three separate segments. As with the horizontal rule, each vertical segment appears on the keyboard layout and can be accessed in each of the rule weights, either 1, 2 or 3.
   - The beginning segment of the vertical rule starts at the baseline and extends down to the capital letter height of the next line. It occupies a space equal to 1/3 of the total point size.



POINT SIZE 12—BEGINNING SEGMENT

   - The middle segment starts at the top of the capital letter height and extends past the baseline down to the top of the capital letter height on the next line. It occupies a space that is equal to the full point size.



POINT SIZE 12—MIDDLE SEGMENT

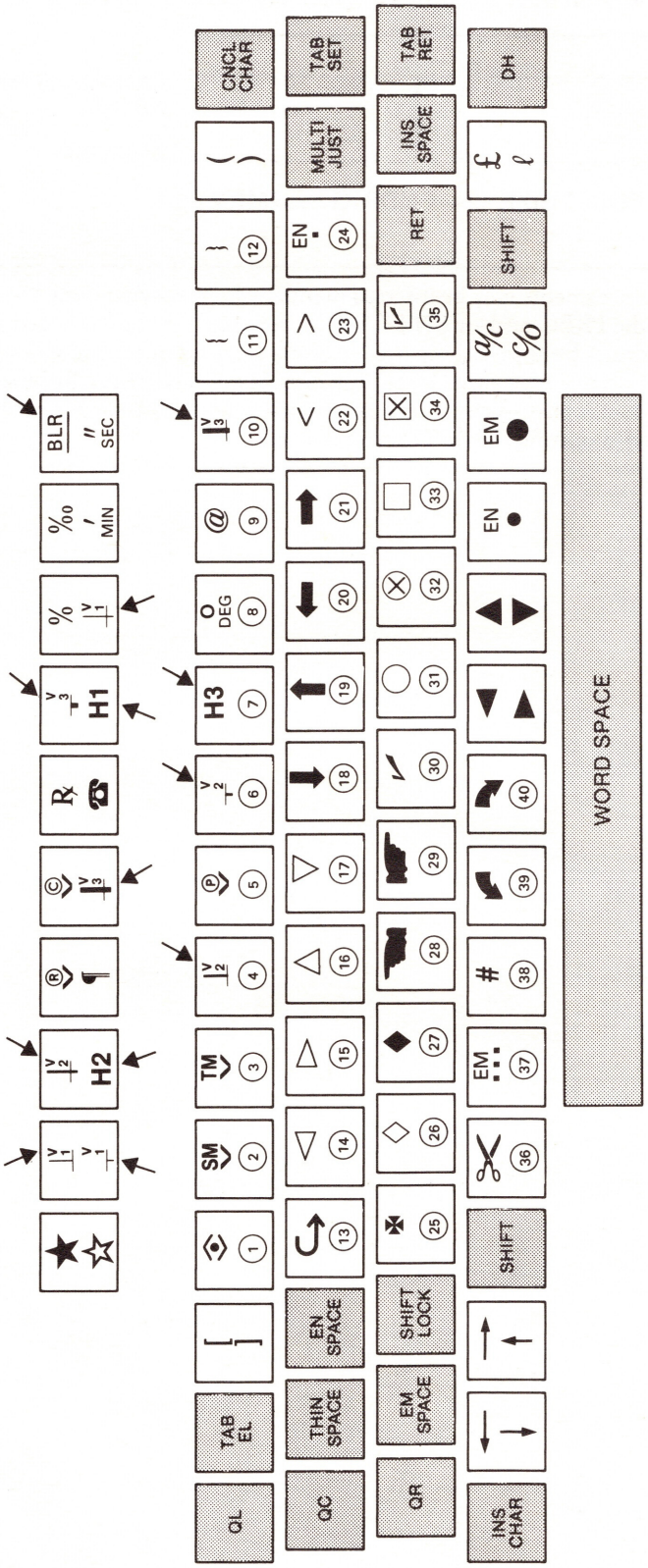
- The ending segment starts at the top of the capital letter height and extends down to the baseline of the same line. It occupies a space equal to 2/3 of the total point size.

POINT SIZE 12—ENDING SEGMENT

NOTE

All horizontal and vertical rule segments may be inserted manually by specifying Font 4 (or Font 2 on the 7300), and keyboarding the PREC and/or SHIFT key as indicated on the keyboard layout. Or, they can be inserted automatically by applying the ruling commands explained throughout this manual. However, the pi characters in this specialized layout can only be accessed manually by selecting the appropriate ruling track and then inputting the necessary keystroke combinations. Make sure the original font is specified again after inputting the desired pi character.

Ruling Keyboard Layout



H1 = Horizontal Rule Segment, Weight 1
H2 = Horizontal Rule Segment, Weight 2
H3 = Horizontal Rule Segment, Weight 3

Layout and typesetting for this Operator Training Manual were provided by Compugraphic's in-house composition department. The typefaces used were Goudy Oldstyle, Goudy Oldstyle Bold and Quorum Bold.

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